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Drawn by A. de Humboldt. Engraved by George Cooke.

Passage of Quindin in the Andes.

A

GENERAL COLLECTION

OF THE

BEST AND MOST INTERESTING

VOYAGES AND TRAVELS

IN ALL PARTS OF THE WORLD

MANY OF WHICH ARE NOW FIRST PUBLISHED

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BY JOHN PINKERTON

AUTHOR OF MODERN GEOGRAPHY

ILLUSTRATED WITH MAPS

VOLUME THE FOURTEENTH

LONDON,

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A GENERAL

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GENERAL COLLECTION

OF

VOYAGES AND TRAVELS.

SOUTH AMERICA.

CAPTAIN BETAGH'S OBSERVATIONS

ON THE

COUNTRY OF PERU, AND ITS INHABITANTS,

DURING HIS CAPTIVITY *.

IT was in the beginning of the ever-memorable year 1720, and about the middle of March, when Captain Shelvocke ſent Hatley, and the reſt of us, to ſeek our fortunes in the lighter called the Mercury. Himſelf, in the Speedwell, went to plunder the village of Payta, where we might eaſily have joined him, had he imparted his deſign to us. However, we had not cruiſed long in ſight of Cape Blanco, before we took a ſmall bark, with a good parcel of chocolate and flour. There was an elderly lady aboard, and a thin old friar, whom we kept two or three days; and, after taking out what we wanted, we diſcharged the bark, and them together. Soon after this, we took the Pink, which Shelvocke calls the rich prize. She had no jealouſy of our being an enemy, but kept her way, till ſeeing the Mercury ſtanding towards her, ſhe began to ſuſpect us. About noon, ſhe put the helm hard-a-weather, and crowded all the ſail ſhe could afore the wind; and being in her ballaſt, this was the beſt of her ſailing, which alſo proved the greateſt advantage they could give us; for, had ſhe held her wind, we, in our flat bottom, could never have come up. About ten at night, with rowing and hard ſailing, we got within ſhot of the chace, and brought her to, being pretty near the ſhore. They were about ſeventy perſons aboard, thirty of whom were negroes. Hatley, upon going aboard, left myſelf and Preſſick, with four more hands, in the Mercury, where we continued two or three days, till a heavy ſhower of rain ſpoiled

* Harris, i. 240.

all our bread, and other dry proviſions. It was then time for us to get aboard the prize; which we did, ſending three hands to take care of the Mercury.

We ſtood off-and-on the ſaid cape ſeven or eight days, expecting to meet the Speedwell; and there we ſet aſhore the Spaniſh captain, the padre, and ſome gentlemen paſſengers: at laſt we ſpied a ſail plying to windward. Not doubting it was the Speedwell, or the Succeſs, we ſtood towards her, whilſt ſhe edging towards us, about ten in the morning, we were got near enough to diſcover ſhe was a ſhip of war, as ſhe proved, though neither of theſe we wiſhed for. The maſter of our prize had before informed us, that he met the Brilliant cruiſing for our privateers, which till now, we entirely diſregarded. Upon this Captain Hatley adviſing with me what to do, we concluded, that ſome advantage might be made of the information given us by the Spaniards; that, as the Brilliant had ſpoken ſo lately with the Pink, probably there would not be many queſtions aſked now: upon which Hatley and I dreſſed ourſelves like Spaniards, and hoiſted Spaniſh colours; we confined our priſoners in the great cabin, ſuffering none of them but the Indians and negroes to appear upon deck, that the Pink might look as ſhe did before: in which contrivance we had ſucceeded, but for the obſtinacy of John Sprake, whom we could not keep off the deck. As the admiral came up, he fired a gun to leeward: hereupon we lowered our top-ſail, making eaſy ſail till we got alongſide of him: their firſt queſtion was, if we had heard any thing of the Engliſh privateer? We anſwered, no: the next was, how it happened we were got no farther in our way to Lima? We anſwered, by reaſon of the currents: they aſked two or three more queſtions, which we ſtill anſwered in Spaniſh. They ſeemed thoroughly ſatisfied, and were getting their tacks aboard in order to leave us, when Sprake, and two or three more of our men appeared on the main-deck; a Frenchman aboard the admiral, looking out at the maſt-head, cried out, ſeeing their long trowſers, *Par Dieu, monſieur, ils ſont Anglois*; they are Engliſhmen: upon this they immediately fired a broadſide into us, with round and partridge ſhot, by one of which Hatley was ſlightly wounded in the leg.

As ſoon as we ſtruck our flag, the enemy ſent for all the Engliſh on board, and ordered two of their own officers into the prize. The Spaniſh admiral then bore directly down upon the Mercury, and fired into her five and twenty guns at leaſt, which bored her ſides through and through; but ſuch was the conſtruction of that extraordinary veſſel, that though full of water, there was not weight enough to ſink her, and the three men who were in her eſcaped unhurt. Don Pedro Midranda, the Spaniſh commander, ordered theſe three men into his own ſhip, in which he intended to ſail to Payta: as for me, he gave directions that I ſhould be ſent forty miles up the country, to a place call Piura; and was ſo kind as to leave Mr. Preſſich, the ſurgeon, and my Serjeant Cobbs, to keep me company: as for Captain Hatley, and the reſt, they were ordered to Lima by land, which was a journey of four hundred miles; for that poor gentleman had the misfortune to be doubly under their diſpleaſure; firſt, for returning into thoſe ſeas after having been priſoner ſo long, and being ſo well uſed amongſt them; and next, for the Cape Frio buſineſs, I mean the ſtripping the Portugueſe captain, a good quantity of whoſe moidores were found about him. The deſign of the admiral, in this, was to have that affair ſearched to the bottom, and the guilty ſeverely puniſhed, without expoſing the innocent to any danger. Here, therefore, I ſhall take my leave of Captain Hatley for the preſent, and proceed to the obſervations I made on the road, as the admiral was ſo good as to ſend me up into the country till his return from his cruize to Payta, when, as I ſhall inform the reader in its proper place, I again joined him.

As the weather in this part of the world is much too hot to permit people to labour in the midſt of the day, the cuſtom is to travel from ſix in the evening till eight in the morning. My Indian guide ſet me on the beſt mule he had, which not caring to follow company, I led my fellow-travellers the way till ten o'clock, while day-light laſted. I obſerved the country one open plain, with Indian plantations, regularly enough laid out on each ſide of us. This champagne country is from thirty to one hundred miles broad, and extends three hundred miles along ſhore; for I was moving to the ſouthward, having the Cordelier mountains on the left hand, and the great ocean on the right. If this land was well watered, as the ſoil is pleaſant and fertile, it might be as fine a country as any in the world; but travellers are here obliged to carry water for their mules, as well as themſelves. At the approach of night we were puzzled in the way; I often found myſelf ſtopped by great hills of ſand, and my mule as often endeavoured to pull the reins out of my hand; which proving troubleſome, the Indian adviſed me to throw the reins on the mule's neck; and, as ſoon as that was done, the creature eaſily hit the way. Theſe ſands are often ſhifted from place to place, which I take to be occaſioned by the ſtrong eddies of wind reverberated from the mountains. At night we reſted a little at an old empty houſe in a coppice, about half way, which the guide told us was built by the inhabitants of Piura, for the accommodation of the prince St. Bueno, viceroy of Peru, when they met him at his entrance on his government, and regaled him. At ſeven in the morning we arrived at Piura, being an handſome regular town, ſituated on the banks of the river Collan. The Indian conducted us to the houſe of an honeſt Spaniſh gentleman, and his wife, who having received his charge, the guide returned to Payta. In a quarter of an hour's time, the town's people flocked in to ſee the raree-ſhew; and, inſtead of being uſed like priſoners at diſcretion, we were entertained with reſpect and civility, which we were not ſure to meet with. Our landlord, I ſhould ſay, keeper's name, was Don Jeronimo Baldivieſo: he had five daughters; upon the ſight of whom, and their beneficent way of receiving us, we hoped our time would ſlide eaſily away, and our captivity prove no way diſagreeable. I began now to be ſenſible of the admiral's favour, in ordering us to this place; for he had ſuch intereſt in all the kingdom of Peru, that for his ſake, we found very good treatment. After we had refreſhed ourſelves, according to the cuſtom of the place, with chocolate, biſcuit, and water, we were diverted with the ſound of a Welch harp in ſome inner apartment: the artiſt had good command of it; for I heard parts of ſeveral famous Italian as well as Engliſh compoſitions; and, upon inquiring, found that all the honeſt Spaniard's daughters had learned muſic, and ſung or played upon ſome inſtrument or other. Though, at firſt, this ſeemed a little unaccountable to us, yet I afterwards found, that muſic was common in Peru; for the Italian party having a few years before prevailed at the court of Madrid, the laſt viceroy, prince St. Bueno, who was an Italian, had brought a great many muſicians of that country along with him, which has now ſpread muſic every where; and it is as good in Peru, as in Old Spain. I the rather take notice of this, becauſe by our being lovers of muſic, and behaving peaceably and civilly to the inhabitants, we paſſed our time very quietly and cheerfully, being expoſed only to one inconvenience, which laſted ſo long as we remained here: this was the daily aſſembling of the people to ſtare at us, which myſelf and my Serjeant Cobbs, bore pretty well; for, being uſed to exerciſe in public, we could turn to the right and left without being much incommoded: but our companion Mr. Preſſick, being a graver man, at firſt hung down his head, and was very melancholy; but, by degrees he grew better acquainted with the people, and found

reaſon to like them ſo well, that when we were to remove, we had much to do to make him change his quarters.

Almoſt all the commodities of Europe are diſtributed through the Spaniſh America, by a ſort of pedlars or merchants, on foot, who come from Panama to Payta by ſea, and, in their road from the laſt-mentioned port, make Piura their firſt ſtage to Lima, diſpoſing of their goods, and leſſening their burdens as they go along. Some take the road through Caxamarca, others through Truxillo, along ſhore from Lima: they take their paſſage back to Panama by ſea, and perhaps carry a little cargo of brandy with them: at Panama they again ſtock themſelves with European goods, returning by ſea to Payta, where they are put on ſhore; there they hire mules, and load them, the Indians going with them, in order to bring them back; and ſo theſe traders keep in a continual round, till they have got enough to live on. Their travelling expences are next to nothing; for the Indians are brought under ſuch ſubjection, that they find lodging for them, and provender for their mules: this every white face may command, being a homage the poor Indians are long accuſtomed to pay; and ſome think they have an honour done into the bargain, except, out of generoſity, they now and then meet with a ſmall recompence. In the Britiſh and French nations a pedlar is deſpiſed, and his employment looked upon as a mean ſhift to get a living; but it is otherwiſe here, where the quick return of money is a ſufficient excuſe for the manner of getting it; and there are many gentlemen in Old Spain, who, when their circumſtances in life are declining, ſend their ſons to the Indies to retrieve their fortune this way: our lodging was in an outhouſe purpoſely for theſe travelling merchants. According to the Spaniſh cuſtom, we had our dinner ſent to the table under cover, where Don Jeronimo and we eat together, while the good lady of the houſe, and her daughters, ſat together in another room. This is the practice at all meals; and, if any ſtrong liquors are drank, it is then. In all our conduct, I think the good Spaniard was never diſobliged, except once, when he ſaw me drinking a dram with the doctor at a little victualling-houſe. As nothing is more diſagreeable to the Spaniards than drunkenneſs, I had much ado to make amends for this ſtep towards it; though they admit of gallantry in the utmoſt exceſs; ſo that it is only changing one enormity for another. After we had paſſed about ſix weeks at Piura, our Indian guide came again to conduct us to Payta, the man of war being returned. When we were upon the point of taking leave, our ſurgeon was miſſing, which retarded us a day longer. They had concealed him in the town, and deſigned to keep him there, as he was a very uſeful man; and if he could have had a ſmall cheſt of medicines, he might ſoon have made a handſome fortune. However, the next day we mounted our mules, and parted with great reluctance, eſpecially with our kind hoſt Don Jeronimo, and his family. We went aboard the Brilliant at Payta, which, having done nothing at ſea, made a ſort of cruiſing voyage to Calao, the port of Lima. The civility I received from the admiral or general of the South Seas, as he is there called, is what I have already mentioned. I ſhall here only add one circumſtance to the honour of Monſieur de Grange, a captain under the general. As ſoon as we were taken by the Brilliant, as aforeſaid, this gentleman, ſeeing the ſoldiers had ſtripped us, being the conquerors uſual perquiſites in all theſe caſes, he generouſly gave me an handſome ſuit of cloaths, two pair of ſilk ſtockings, a hat, wig, ſhirts, and every thing according; ſo that inſtead of ſuffering, I was in reality a gainer by this accident.

Our voyage to Lima took up about five weeks; and, as ſoon as we arrived there, we were immediately ſent to the ſame priſon in which the ſhip's company were confined, who were ſent hither before us, Mr. Hatle only excepted; who, for the reaſons be-

fore

fore-mentioned, was confined by himself, and very roughly treated. In a short time after our arrival, commissioners were appointed to hear our cause, and to determine, whether we should be treated as criminals or as prisoners of war. The reason of this was, the charge brought against us for piracy, not for what we had done in the South Seas, or at least, not for that only, but upon a supposition, that we plundered the Spaniards there, because none but Spaniards were to be met with, having used the like violence, as their charge set forth, against other nations, before our arrival in these seas; which would have shewn a piratical disposition through our whole conduct. And of this they thought they had probable proof, since by the moidores found upon Hatley, it appears they were taken from the subjects of a prince in perfect amity with the crown of England: but it was happy for us that the viceroy, Don Diego Morsilio, who was an archbishop, and in the decline of life, was pleased coolly to discriminate the affair, and finding really but one of us guilty, would not sign any order for shedding innocent blood: as for Hatley, some were for sending him to the mines for life, others for hanging him; but the several accounts of Captain Shelvocke's vile proceedings contributed to his deliverance, the truth of which here were enough of our people at Lima to witness; for, besides Lieutenant Serjeantson, and the men who Shelvocke sent with Hopkins to shift for themselves, who were brought hither, came who, for want of sustenance, was forced to surrender themselves in a poor empty bark, believing Shelvocke more a principal in that piratical than Hatley, and supposing we had been plagued enough before we came hither, though fit to let us all go by degrees: Hatley indeed was kept in irons about a month, and then was allowed to return to England. I was much more happy in respect, since my imprisonment lasted but a fortnight; which was owing to the position of Captain Fitzgerald, a gentleman born in France, who had a great interest with the viceroy, and who, upon his becoming security for me, permitted me to have the liberty of the city, provided I was always forthcoming when I was called for. As soon as I was pretty much at ease, I began to look about me, and to inform myself of what was most remarkable in this part of the world.

Among the first of my inquiries, was that after the condition of other Europeans in the place; and, upon asking for Mr. Serjeantson, and his men, who were prisoners with us, I understood that most of them had taken up the religion of the country, were christened, and were dispersed among the convents in the city. The first of them I had got his new catechism in one hand, and a pair of large beads dangling in the other. I smiled, and asked the fellow, how he liked it. He said very well; for having changed religion to chuse, he thought theirs better than none, since it brought him good meat, drink, and a quiet life. Many of Shelvocke's men followed this example; and I dare venture to say, this was as good a reason as most of our people could give for their occasional conformity. It is here reckoned very meritorious to make a convert, and many arguments were used for that end; yet was there no rigour shewn to bring any of us over. Those who thought fit to be baptized, had generally some of the merchants of Lima for their padrons or godfathers, who never failed giving their godchildren a suit of cloaths, and some money, to drink their healths. About this time, four or five of Clipperton's men, and as many of Shelvocke's, got leave from their convents to meet together at a public house kept by one John Bell, an Englishman, who had a negro wife, that, for some services or other, had got her freedom. The design of this meeting was to confirm their new baptism with a bowl of punch: the consequence of which was, they all got drunk, and quarrelled; and, forgetting they were true catholics, mistook an image of some honest saint, that stood in a corner, for one of their own company, knocked

knocked him down, and demoliſhed him. I, miſſing the fellow for a few days, inquired at John's houſe what was become of them; he told me the ſtory, and ſaid, they were all put in the Inquiſition, for the thing having taken air, he was obliged to complain of it, or go thither himſelf; but promiſed, that underhand, he would endeavour to get them releaſed; which, I found afterwards, was done in five days, to that they had time to repent, and be ſober. Bell ſaid, the men had ſtill returned heretics, this drunken bout had not come within the cognizance of the eccleſiaſtical power; but, being novices, and juſt admitted into the church, they were the eaſier pardoned, as their outrage upon the ſaint was no proof of their relapſe into error, or an affront to the catholic faith, ſince done when they were diſordered in liquor. At length, about a dozen men in both our ſhips, being inſtructed, were diſcharged from the cloiſters, and ſent to Calao, to help to careen and fit out the Flying-fiſh, then deſigned for Europe. Here they entered into a project to run away with the Margarita, a pretty ſailing ſhip, that lay in the harbour, and to upon the account for themſelves, which differs nothing from piracy; but, not knowing what to do for ammunition, and a compaſs, they applied to Mr. Serjeantſon, telling him, they had a deſign to ſteal away by land to Panama, where, being an Engliſh factory, they might have a chance to get home; that they had got half a dozen firelocks, with which they might kill wild hogs, or get ſome game, as they went along, if he would be ſo kind as to help them to a little powder and ſhot, and a compaſs to ſteer their way through the woods. The fellows, by begging, and catholic ſigns to the good people at Lima, that they were poor Engliſh new-, had got together ſome dollars, which they deſired Serjeantſon to lay out not miſtruſting the plot, took their money, and bought them what they wa furniſhed, one of them came to me at Lima, and ſaid, offered to make my fortune, by running away with the Margarita at Cala there was an opportunity, could embrace it; whereupon he told me the ſtory, and that Sprake was command, as being the only artiſt among them. I anſwered, that it was deſign; but as Captain Fitzgerald had engaged for my honour, I was obliged to meddle with it. In a few days the plot was diſcovered, their lodgings were ſearched, their arms taken away, and they put in priſon. The government was great at Sprake, who, being the projector, was kept in irons two or three months, re ſet at liberty. If this ſhews the reſtleſs enterpriſing temper of our ſeamen, at the ſame time, that the Spaniards in Peru are by no means ſo cruel, either religious or ſtate proſecutions as in Europe; though I am inclined to think, that the averſion of theſe people, ſuch as it was, operated greatly in their favour; it may be alſo, that they were ſome way influenced by fear, ſince the Engliſh privateers were ſtill upon the coaſt, and in caſe they had received intelligence of theſe people being ſeverely dealt with, might have revenged it on ſome of their priſoners. But it is to little purpoſe to employ one's thoughts in attempting to diſcover the motives of an act of Spaniſh policy, ſince, whatever thoſe motives were, the act in itſelf was compaſſionate and good.

The dominions which the Spaniards poſſeſs in America are ſo large, and ſo valuable, that there is no doubt, if they were properly governed, they might render that monarchy equally formidable in Europe, and the Indies. The long ſtay I made in Peru, the preſent ſtate of which there are few opportunities of knowing in this part of the world, afforded me the means of examining with leiſure and attention their manner of living, the form of their government, the nature of their amuſements and diverſions, which, in this country, take place of buſineſs, and furniſhed me with many opportu-

nities

nities of inquiring into thoſe things very minutely, which did not fall immediately under my obſervation as an eye-witneſs; and of theſe I ſhall endeavour to give the reader as clear, as diſtinct, and as accurate an account, as is in my power, with the greateſt regard to truth, and conſtantly diſtinguiſhing between what fell immediately under my knowledge, and what was derived to me by the information of others. This was certainly the beſt uſe I could make of that leiſure I enjoyed, while a priſoner in the hands of the Spaniards; and may poſſibly contribute more to the ſervice of my country, than if I had employed myſelf in privateering on the coaſt. I ſhall begin with the deſcription of the place where I ſpent moſt part of my time, and which, as it is the centre of the Spaniſh government in theſe parts, enabled me to gain a greater inſight into their affairs, than if I had paſſed my days in any of their ports, or in an inland city, leſs frequented. The liberty I was allowed, and the kind uſage I received, made this ſtill the more eaſy; and therefore it may be depended upon, that what I offer the world is a fair and genuine repreſentation of matters of fact, and not a fine-ſpun ſtory, framed from conjecture and hearſay. If, after all, the wide difference between the manners of theſe people and thoſe in the northern part of Europe, ſhould give it an air of extravagance, I muſt deſire the reader to reflect, that this is not owing to me, but to the ſubject. A man, who undertakes to deſcribe things he has ſeen, muſt deſcribe them as they are, without regard to the appearance they may make in the eyes of others. But to come to the point: The great and rich city of Lima is the metropolis of Peru, and the ſeat of an archbiſhop. It is a regular-built city, the ſtreets all ſtrait and ſpacious; ſo that you go through it any way, without turning a corner. It is compoſed of little ſquares, like St. Iago, the capital of Chili; which was built from this. It ſtands in an open vale, having only a gentle ſtream to water it, [illegible] which divides it, as the Thames does London from Southwark, allowing for the [illegible] proportion. The port of Lima is at Calao, ſeven miles below it. The houſes at preſent [illegible] only one ſtory high, of twelve or fourteen feet, becauſe of the frequent earthquakes in that country. There are about eight pariſhes, three colleges for ſtudents, twenty-eight monaſteries of friars, and thirteen monaſteries of nuns; ſo that the religious take up [illegible] fourth part of the city. However, by the quick flow of money, and the vaſt ſums bequeathed, being the effects of celibacy, they are all well endowed and ſupported; beſides which, there are two hoſpitals for the ſick, poor, and diſabled, and where ſeveral of them were kindly looked after. The length of the city, from north to ſouth, is two miles, the breadth one and an half; the wall, with the river, making a circumference of [illegible] miles. On the eaſt part of the ſtream lies the other part of the city, being joined to it by a very handſome ſtone bridge of ſeven arches. I computed that there were 60 or 70,000 perſons in Lima, all ſorts and colours included; and I do not wonder at any multiplication in a city, which is the centre of ſo much affluence and pleaſure; for, beſides the natural increaſe of the inhabitants, all ſhips that trade that way, whether private or public, generally leave ſome deſerters, who chuſe to ſtay behind, from the encouragement all white faces meet with. Of all parts of the world, the people here are moſt expenſive in their habit. The men dreſs as they do in England, their coats being either of ſilk, or fine Engliſh cloth, and hair camlets, embroidered, or laced with gold and ſilver; and their waiſtcoats commonly the beſt brocades. The women never wear hoops or ſtays, only a ſtitched holland jacket next their ſhifts. They generally throw over their ſhoulders a ſquare piece of ſwan-ſkin flannel, entirely covered with Flanders lace; beſides the ſilver or gold lace round the petticoat. When they walk out, the Creolian women are veiled, but not the Mulatto; and, till the age of thirty or forty, they wear no head-cloaths, their hair being tied behind with fine

ribbands. But the pride of the ſex appears chiefly in Mechlin and Bruſſels lace, with which they trim their linen in a moſt extravagant manner, not omitting their ſheets and pillows, beſides the outward covering of the mantle aforeſaid. Their linen is doubly bordered with it, top and bottom, with ruffles of four or five furbelows hanging down to the knee. Then, as to pearls and precious ſtones, which they wear in rings, and bracelets for the neck and arms, they are very extravagant, though the value is hardly equal to the ſhew they make.

The viceroy has an handſome palace in the great quadrangle of the city, which I take to be near as large as Lincoln's-Inn-Fields, London. His ſalary is ten thouſand pounds a year; and his perquiſites double that ſum: And though his government expires at three, four, or five years' end, as the king pleaſes, yet, it is ſuppoſed, he makes a good fortune for life; for he has all places in his gift, both in the government and army, throughout Peru, except particular perſons are ſent or nominated by the king. The judicial court conſiſts of twelve judges, not to mention the inferior officers, counſel, and ſolicitors. Here all cauſes ſhould come to be decided, but they are too often determined beforehand in favour of the party who gives moſt money; and though theſe vaſt dominions abound in riches, yet there is not abundance of work for the lawyers, becauſe the ſtatutes are few and plain, which is certainly happier than a multitude of laws explaining one another, till they are ſo intricate, that the iſſue of a cauſe depends more upon the craft of a ſolicitor and advocate, than the truth of the caſe. Beſides all this, a multiplication of laws begets an infinity of attornies and counſellors, who live high and great upon the diſtreſſes of other people, and as often argue a man out of his right as into it. Theſe hardſhips are paſt retrieving; becauſe every magiſtrate knows his reign to be but ſhort, and if he don't make a fortune he is laughed at; ſo the king's orders are ſeldom regarded, being two years going and Spain, is toward; whence ariſe many clandeſtine doings; for, according to law, backward and have a twentieth part of the gold, and a fifth part of all ſilver; but the king ſh quantities that never pay duty, carried privately over the continent the there are as well as the ſouth, by trading ſhips; and though there are prodigious north w ved for the militia, garriſons, and repairs of fortifications, yet it is not one-ſums a lied: from all which it is eaſy to imagine, what immenſe revenues would half co to the treaſury at Madrid, if his Catholic Majeſty was but faithfully ſerved.

The country in Peru is naturally ſubject to earthquakes; at Lima they had two great ones about fifty years ago, which overturned houſes, churches, and convents; and, in the reign of Charles II. the late king of Spain, there was an earthquake near the equinoctial line, that lifted up whole fields, and carried them ſeveral miles off. Small ſhocks are often felt without doing any harm; and I have been two or three times called out of bed when ſuch a thing has happened, though we have heard no more of it; but, upon theſe occaſions, the bells always toll to prayers. Notwithſtanding this country, eſpecially nigh the coaſt, has ſuffered much by earthquakes, yet their churches are lofty enough, and neatly built: that part of their architecture, which requires moſt ſtrength, is generally finiſhed with burnt bricks; but their houſes are all built with bambo, canes, and bricks, dried only by the weather, which are durable enough, becauſe it never rains: the covering is a matting with aſhes upon it, to keep out the dews, which is all the wet they have. The ſmall river of Lima is moſtly ſnow-water, deſcending from the neighbouring mountains, which are covered all the year with ſnow, but partly diſſolved in the ſummer ſeaſon, which is from September to March. One would expect it much hotter thereabouts than it is, there being no proportion between

the heat of this climate in America, and the ſame degree of latitude in Africa: for which there are two reaſons; the one is the cool temper of the air, proceeding from the congealed ſnow on the mountains, which diffuſes itſelf every way; the other is the humidity of the vapours, which hang over the plains, and which are ſo frequent, that, when I came firſt to Lima, I often expected it would rain. Theſe vapours are not ſo coarſe, low, and gloomy as our fogs; nor ſeparated above, like our ſummer clouds; but an exhalation between both, being ſpread all round, as when we ſay the day is overcaſt: ſo that ſometimes a fine dew is felt upon the outward garments, and diſcerned by the eye upon the knap of the cloth. This is an happy convenience at Lima, the people being thus ſcreened one half of the day from the ſun; and though the afternoon be ſun-ſhine, 'tis very tolerable, being mixed with the ſea breezes, and not near ſo hot as at Liſbon, and ſome parts of Spain in Europe, which are thirty degrees further from the equator. The want of rain in this part of the continent obliged the poor Indians, before the conqueſt, to make drains and canals, for bringing down water from among the diſtant mountains; which they have done with ſuch great labour and ſkill, that the vallies are properly refreſhed, producing graſs, corn, and variety of fruits, to which the aforeſaid dews may alſo a little contribute; and therefore this ſhews, that there is no judging from circumſtances, whether a country be habitable or not, ſince, in this reſpect, nothing would ſeem more concluſive than the abſolute want of rain. A Spaniſh hiſtorian has given us the natural cauſe of this perpetual drought: he obſerves, that the ſouth-weſt winds blow upon the Peruvian coaſt all the year round, and the ocean is, therefore called Pacific, becauſe the winds never diſturb the waters: theſe eaſy gales always bear away the vapours from the plains, before they can riſe and form a body ſufficient to deſcend in a ſhower; but, when they are carried farther and higher, they grow more compact, and at length fall, by their own weight, into rain. They have plenty of cattle, fowl, and fiſh, and all proviſion common with us, except butter, inſtead of which they always uſe lard; they have oil, wine, and brandy enough, though not ſo good as in Europe. They drink much of the Jeſuits herb camini, brought from Paraguay by land; for all Eaſt India tea is forbid: they make a decoction of it, and ſuck it through a pipe; it is generally here called mattea, being the name of the bowl out of which they drink it. Chocolate is their uſual breakfaſt, and a grace-cup after dinner; ſometimes they drink a glaſs of brandy for digeſtion, but ſcarce any wine at all. In the kingdom of Chili they make a little butter, ſuch as it is; and their way of doing it is remarkable: the cream is put into a ſheep-ſkin, and kept on purpoſe for that uſe; two women lay it on a table, and ſhake it between them, till it comes.

The Spaniards are no friends to the bottle; yet gallantry and intrigue are here brought to perfection; for they devote ſo much of their time to the ſervice of the fair ſex, that it is unmannerly not to have a miſtreſs, and ſcandalous not to keep her well. As for the women, they have many accompliſhments, both natural and acquired; their converſation is free and ſprightly, their motion graceful, their looks winning, and their words engaging; they have all a delicate ſhape, not injured with ſtiff-bodied ſtays, but left to the beauty of nature; ſo that there is no ſuch thing as a crooked body among them. Their eyes and teeth are particularly excellent; and their hair, being generally of a dark poliſhed hue, is finely combed, and platted and tied behind with ribbands, but never diſguiſed with powder; for the brightneſs of their ſkins round the temples appears very well ſhaded through the hair, like light through a landſcape. Though amours are univerſal at Lima, yet the men are careful enough to hide them; for no indecent word or action is allowed in public. They have two ſeaſons for theſe entertainments; one is at the ſieſta, or afternoon's nap, which is commonly with the

miſtreſs; the other is in the evening, croſs the water, in calaſhes, or at the great ſquare in the town, where the calaſhes meet in great numbers towards the duſk; theſe are ſlung like our coaches, but ſmaller, and many of them fit only for two, ſitting oppoſite: they are always drawn by one mule, with the negro driver upon his back; and it is uſual, among thoſe calaſhes, to obſerve ſeveral of them with the windows cloſe up, ſtanding ſtill for half an hour together. In theſe amuſements, they have ſeveral cuſtoms peculiar to themſelves: after evening prayers, the gentleman changes his dreſs from a cloak into a montero, or jockey-coat, with a linen laced cap, and a handkerchief about his neck inſtead of a wig: if he wears his hair, it muſt be tucked under a cap, and that flapt all down; ſo that it is an univerſal faſhion to be diſguiſed ſome way or other; for thoſe who have no miſtreſs are aſhamed to be thought virtuous, and muſt be in ſome maſk or other to countenance the way of the world. But, as all this is night-work, they have an eſtabliſhed rule to prevent quarrels, which is, never to ſpeak or take notice one of another, whether they are going in queſt of, or viſiting their ladies; ſo that, in ſhort, the forepart of the night is a maſquerade all the year round. Among the rank of people who do not keep calaſhes, there are ſeveral points to be obſerved, particularly when they take the evening air; one couple never walks cloſe upon the heels of another; but, to prevent the publiſhing any ſecret whiſpers, each couple walks at the diſtance of twelve yards at leaſt; and if any lady drops a fan, or any thing, by accident, a gentleman may civilly take it up, but he muſt not give it to the lady, but the gentleman who is with her, for ſhe may be the ſiſter or wife of him that takes it up; and, as the women are all veiled, theſe wiſe laws are invented to prevent any impertinent diſcoveries. A freedom of that kind is looked upon as the higheſt affront in all gallantry, and meets a drawn ſword through the liver. They are ſo careful in theſe rules, that if any man ſees his intimate friend any where with a woman, he muſt in no wiſe take notice of him, or ſpeak of it afterwards. Things of this nature are all done with the greateſt gravity imaginable, and the practice of gallantry becomes, by this means, decent, ſoft, and eaſy: but notwithſtanding the commerce of love is here ſo regularly ſettled, yet there are jealouſies now and then ſubſiſting, which ſometimes have ended fatally. There was a ſtory of this ſort pretty freſh when I was at Lima:—a young lady had for ſome time, as ſhe thought, been the ſole ſovereign of her lover's heart; but, by chance, ſhe found him in the company of another woman; and, as our inimitable Shakeſpeare has it, "Trifles, light as air, are, to the jealous, confirma-"tions ſtrong;" ſhe waited therefore no further proof of his infidelity, nor expected any excuſe for the wrong done her, but ſuddenly drew his dagger, and diſpatched him. She was ſoon brought to trial; and when every one expected ſhe would pay the forfeit of her life, her judges gave it this turn, that it was not malice, but exceſs of love, that prompted her to the raſh deed; ſhe was therefore acquitted: but ſome nice caſuiſts thought ſhe ſhould, in honour, have hanged herſelf. How agreeable ſoever theſe practices are to the Creole Spaniards, yet they cauſe an inconvenience to ſociety; for the men are ſo ſeriouſly taken up with theſe ſorts of matters, that the women engroſs moſt of their time, and ſpoil public converſation. For this reaſon, there are no taverns or coffee-houſes; ſo that the men are only to be met with at their offices, or at church. The ſame inconvenience, in a greater or leſs degree, attends this propenſity to gallantry, wherever it prevails; and may be juſtly conſidered as the bane of induſtry, corrupting the minds of both ſexes, and inſtilling the baſeſt principles of indolence and debauchery.

It is chiefly owing to this effeminate diſpoſition, that all manly exerciſes, all uſeful knowledge, and that noble emulation, which inſpirits virtue, and keeps alive reſpect

to the public good, are unthought of here: for, as there is naturally a great mixture of phlegm and ſtubbornneſs in Spaniſh conſtitutions, ſo whatever ſettles amongſt them into a cuſtom, obtains the force of an inviolable law; and, however abſurd, however contrary to religion or virtue, however noxious to ſociety, or fatal to private peace, is not to be rooted out by art or force. The amuſements, therefore, that ſerve to relax the labours of the induſtrious in other countries, and yet keep alive the vigour and activity of body, and of mind, are never known in Peru; and whoever ſhould attempt to introduce them, would be conſidered as an innovator, which, among Spaniards, is a frightful thing: nor would they ſuffer themſelves to be convinced, that martial exerciſes, or literary conferences, are preferable to intrigues. They have, however, a ſort of playhouſe, where the young gentlemen and ſtudents divert themſelves after their faſhion; for what performances they have in the dramatical way are ſo mere that they are hardly worth mentioning, being ſcripture ſtories interwoven, I might ſay, and, which is ſtill worſe, with obſcenity.

It was at this theatre, that two Engliſhmen, [illegible] a prize a little before I came to Lima: they firſt [illegible] ciſe at the uſual weapons; and, after the ſhew- [illegible] taken up with preparatory ceremonies, to bring, [illegible] by beat of drum, in their Holland ſhirts and ribba[illegible] windows with a flouriſh of the ſword; ſo that, by th[illegible] the thing, the whole city came to ſee the trial of ſkill: [illegible] leſs than a dollar: when the company, male and fema[illegible] the maſters mounted the ſtage; and, after the uſual com[illegible] liſh nation, of ſhaking hands before they fight, they retired upon their guard. Several bouts were played without much deſign of this meeting being more to get money than cuts or ci[illegible] had the ſeaſonable fortune to receive a ſmall hurt on the breaſt, [illegible] his ſhirt, began to make the combat look terrible; upon which t[illegible] from ſuch a dreadful beginning, that the zeal of the champions mig[illegible] and conceiving, till they were reconciled, no man in the houſe was [illegible] cried out Baſta, Baſta, which ſignifies Enough, Enough; and ſo the [illegible] The ſailors, finding this a better prize than any they ever met with at ſea, ſought his Excellency to grant them a licence for another trial of ſkill; but and all the people, were againſt it, from a religious objection that could ne[illegible] over; and that was, leſt the fellows ſhould kill one another, and die without ab[illegible] One cannot help obſerving, when ſo fair an opportunity offers, that the public ſions of any place always ſhew the temper of a people; whence appears the dang[illegible] introducing, under the notion of elegance, the amuſements of a dejected or an effe[illegible] nate nation, becauſe, in time, they every where produce the ſame effects; that is to ſay, they mould thoſe, amongſt whom they are introduced, into the ſame temper with thoſe from whom they are derived; and I dare ſay, if gallantry prevailed here as much as in Peru, we ſhould ſoon grow as much out of love with prize-fighting, and with whatever elſe had any affinity with labour or danger, as they: ſo natural it is, for the love of pleaſure to daſtardize the very braveſt people.

A further inſtance we have of this deficiency of ſpirit in the Spaniards, from their careleſſneſs with reſpect to thoſe countries and iſlands yet undiſcovered, in the neighbourhood of their vaſt dominions in America; notwithſtanding the aſſurances they have had, that ſome of theſe countries are richer, and of much greater conſequence, than thoſe they have already conquered or ſettled. The firſt Spaniſh governors of Mexico

and Peru were not of this indolent and unaſpiring temper; but beſtowed great care and pains in endeavouring to obtain the moſt perfect knowledge poſſible of the places bordering upon thoſe under their reſpective governments; but now that generous thirſt of fame is abſolutely extinguiſhed, and the Spaniſh governors, inſtead of aiming at new diſcoveries, content themſelves with plundering their fellow-ſubjects, that are ſettled in the old. The regions which lie north of the kingdom of Mexico, are known to abound with ſilver, precious ſtones, and other rich commodities; yet the Spaniards not only decline their conqueſt on that ſide, but diſcourage, as much as they can, the reports ſpread of the wealth and value of thoſe countries. Upon the ſame principles, they give no ſort of encouragement to attempt penetrating into the heart of South America, whence the beſt part of the riches of Peru is known to come; the mountains, which are at the [illegible] the country, being extremely rich in gold; and the regions on the other ſ[illegible] known to be inhabited by nations that have abundanc[illegible] for fear of being oppreſſed by the Europeans, the[illegible] this proceeded from a maxim of true policy, y[illegible] have enough, and applying themſelves to govern [illegible]ld be extremely commendable, and would cer[illegible]e, and continuance of their empire in thoſe parts. [illegible] the conduct of their viceroys and other officers, that [illegible]umulating wealth, at the expence of thoſe they ſhould [illegible]ple to wiſh, that they would apply themſelves to diſco[illegible] governors means of making their fortunes, without diſ[illegible]ubjects to the crown of Spain.

[illegible]es that have ever been talked of amongſt the Spaniards, that [illegible] noiſe, is the Iſland or Iſlands of Solomon. Theſe are ſuppoſed [illegible]oſe diſcovered by the famous Ferdinand de Quiros: he reported [illegible]y rich, as well as extremely populous; and deſired, by repeated [illegible] might be authorized, by the Crown of Spain, to proceed in, and [illegible]y; but, as all his inſtances were neglected, in the ſpace of a few years [illegible]tion, whether there really were any ſuch iſlands or not; and the treat[illegible] as a romance, was, for ſome time, a political maxim with the viceroys [illegible]d perhaps, by degrees, the very wiſeſt people in America would have been [illegible]er to this opinion; but it ſo happened, that, towards the latter end of the [illegible]ury, ſuch diſcoveries were made as to the reality of theſe iſlands, that Don [illegible] de Miranda was ſent in the year 1695, upon diſcovering them, in which he [illegible]ried; but, in the ſearch, met with four iſlands, between 7 and 10° of ſouth lati[illegible]e, wonderfully rich and pleaſant; the inhabitants of which were a better looking people, and far more civilized, than any of the Indians upon the continent. This occaſioned a good deal of diſcourſe at that time; but the diſturbances that followed ſoon after, took up people's thoughts to ſuch a degree, that all hopes of finding, or even endeavouring to find, theſe happy iſlands, were intirely laid aſide.

Yet, while I was in Peru, this attempt was renewed again, though to very little purpoſe, by an odd accident. Before I enter upon this, I muſt be obliged to ſay ſomething of the perſon employed in the diſcovery: among the reſt of the French traders or interlopers, that were deſtroyed by Martinet's ſquadron, there was one Mr. Thaylet, with whom I was well acquainted at Lima, who loſt all his effects: but even this hard uſage could not drive him out of Peru; he came thither to make a fortune, and he did not, by any means, care to return home a beggar. He had formerly commanded ſeveral good ſhips, and was an expert artiſt. He offered his ſervice to the Government,

and this offer of his was very kindly received. The firſt affair of importance in which he was employed, was an expedition to the Iſland of Juan Fernandez, in order to find there the bottle, with the inſtructions, which Captain Clipperton left behind him for Captain Shelvocke, when, in purſuance of his inſtructions, he touched at that iſland, and cruiſed in its neighbourhood for a month. Of this the viceroy was informed by one of Clipperton's men, that was taken priſoner; which information immediately produced a reſolution to ſend for thoſe inſtructions, in order to prevent the Engliſh privateers from joining; and a more proper man for ſuch an expedition could not have been found than Mr. Thaylet, who, in point of ingenuity and practice, was a much more capable man than moſt in the Spaniſh ſervice. This circumſtance of ſending for the bottle is the moſt authentic teſtimony that can poſſibly be expected to the truth of Thaylet's journal, and the hiſtory already given of Clipperton's proceedings. I might add, that it is as direct a refutation of all that Captain Shelvocke has advanced upon this ſubject; ſo that it is impoſſible for any man, who conſiders it, to believe what he charges Captain Clipperton with to be true; or to dream, that it ever was the intention of Clipperton to deſert Shelvocke. It might alſo be obſerved, that the latter does not ſo much as pretend to have left any inſtructions for Clipperton, in caſe he ſhould come to any of the places where Shelvocke had touched; the inference from which is very eaſy.

While Mr. Thaylet was gone upon his cruiſe, a Spaniſh ſhip arrived at Calao, the maſter of which reported, that, being driven out of his courſe, he had made the Iſlands of Solomon. This occaſioned much diſcourſe on that ſubject, and the comparing all the different accounts that had been given of theſe iſlands, and their inhabitants, which appeared ſo clear, ſo probable, and well connected, as ſcarce to leave any doubt of the veracity of ſuch as pretended to have made this diſcovery. In the midſt of the diſcourſes raiſed by this accident, another ſhip arrived, with the like account, attended with circumſtances, which rendered it evident, that there could not be any fraud or colluſion in the caſe; but that both had, by pure accident, been driven upon the ſame iſland. This was very lucky for Mr. Thaylet, ſince, while he was employed in one expedition, another was thus unexpectedly provided for him. On his return with the inſtructions, and the two men who deſerted there, the viceroy, willing to encourage him, thought of this ſhort expedition for him in the ſame veſſel, being an Engliſh ketch of about ſixty tons, and in which he had ſerved Captain Martinet as a tender; for the intelligence he had received of Solomon's Iſland made his Excellency curious to purſue the diſcovery. He therefore ordered the ketch to be fitted out for two months, under Thaylet's command; who accordingly ſailed into 10° ſouth, in which latitude the iſland was ſaid to lie. He cruiſed thereabouts till his proviſion was very nigh expended, and returned, without ſucceſs. However, as the ſame account came by two different ſhips, who touched there, the Spaniards verily believe there is ſuch a place; for the men reported, that the natives, as to their perſons and behaviour, were much like the Indians on the continent; that they had gold and ſilver things among them; but that their language was ſtrange and unintelligible. The reaſon why Mr. Thaylet could not meet with Solomon's Iſland, might be from the uncertainty of the latitude, and his inability of making further ſearch, being provided only for two months; for I have been informed in London, that the ſaid iſland or iſlands lie more ſoutherly in the Pacific Ocean, than where they are laid down in the Dutch maps; and the two Spaniards, who had been there, were only ſmall trading veſſels, carried thither by irregular currents; and could give no certain account of the latitude, becauſe they kept no reckoning. And thus ended all thoughts of proſecuting this diſcovery at that time.

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As the riches of Peru conſiſt chiefly in their ſilver mines, I ſhall endeavour to treat of theſe, not only from my own experience, but from the beſt lights I have been able to derive from the ſtricteſt inquiry I had it in my power to make from others. There are two ſorts of ſilver mines; the one, where ſilver is found ſcattered about in ſmall quantities; the other, where it runs in a vein between two rocks; the one exceſſively hard; and the other much ſofter: and it is theſe laſt, which beſt deſerve, and are generally diſtinguiſhed by, the name of ſilver mines. This precious metal, which is, in other countries, the ſtandard or meaſure of riches, is, in Peru, the riches of the country, conſidered in another light, I mean that of a natural commodity; for, throughout the whole of that vaſt country, there are almoſt every where ſilver mines to be met with, of more or leſs value, according as the ore produces more or leſs ſilver, and can be wrought at a greater or leſs expence. There are ſome, but not a great many, mines to the northward of Lima; but, to the ſouth, they are very numerous. On the back of the Andes, there lies a nation of Indians, called los Plateros, or the Plate-men, from the vaſt quantities they poſſeſs of ſilver; but the Spaniards have very little communication with them. The beſt part of the mine countries are to the ſouth of Cuſco, from thence to Potoſi, and ſo to the frontiers of Chili; and where, for the ſpace of 300 miles, there is a continued ſucceſſion of mines, ſome being diſcovered, and others deſerted, every day.

It is a common thing for the people here, as well as elſewhere, to complain of the preſent times, and commend the paſt, as if heretofore there were infinitely greater quantities of ſilver dug out of the mines than at preſent: and, perhaps, with regard to particular mines it may be ſo; but, upon the whole, doubtleſs the quantities of ſilver that are annually obtained in the Spaniſh Weſt Indies abundantly exceed what were formerly exported from thence. As to the names of thoſe, which have been moſt remarkable, or are ſo at preſent, in the country of Peru, they are theſe; viz. the mines of Loxa and Camora, Cuenca, Puerto Veio, St. Juan del Oro: theſe are wrought at preſent. Thoſe of Oruro and Titiri are neglected. Thoſe of Porco and Plata filled up. At Potoſi there are a great number of mines. And thoſe of Tomina, Chocaia, Aracuma, Xuxui, the Calchaques, Guaſco, Iquique, &c. are all wrought with more or leſs profit; and this according to the ſkill of their proprietors, or of ſuch as have the direction of theſe works. It is generally believed, and there ſeems to be ſome reaſon for it, that experience has taught the Creolians here a perfect acquaintance with minerals, and the art of treating them, ſo as to obtain the largeſt profit. But, however, when one conſiders their ignorance in other arts, their going on conſtantly in the ſame beaten track in this, together with their vaſt waſte of quickſilver, one is almoſt tempted to believe, that our European miners might manage their works to ſtill greater advantages. This ſeems the more probable, when one reflects, that this knowledge of theirs is not at all founded upon principles, but is, properly ſpeaking, an art built upon accidental diſcoveries, in which there is little of accuracy, and abundance of uncertainty; which will be more evident to the reader, when he has peruſed and conſidered the following account of the manner in which the ſilver is extracted from the ore at the mines.

The moſt perfect ſilver that comes from thence, is in that form which the Spaniards call Pinnas, which is a lump of ſilver extremely porous, becauſe it is the remainder of a paſte, made of ſilver-duſt and mercury; and the latter being exhaled, leaves this remainder of the maſs ſpongy, full of holes, and light. It is this kind of ſilver that is put into different forms by the merchants, in order to cheat the king of his duty, though that is but very moderate; and therefore all ſilver in this condition, if found any where

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on the road, or on board any ſhip, is looked upon as contraband goods, and is liable to ſeizure. In regard to the art of refining, therefore, I am to ſhew the progreſs of the ore from the mine to this kind of maſs or cake: after having broken the ſtone taken out of the vein of ore, they grind it in their mills with grind ſtones, or in the Ingenios Raales, or royal engines, which conſiſt of hammers or pounders, like the French plaſter-mills. They have generally a wheel of about twenty-five or thirty feet diameter, whoſe long axle-tree is ſet with ſmooth triangles, which, as they turn, hook or lay hold of the iron hammers, lift them up to a certain height, from whence they drop at once at every turn; they generally weigh about 200 weight, and fall ſo violently, that they cruſh and reduce the hardeſt ſtones to powder by their weight alone. They afterwards ſift that powder through iron or copper ſieves, to take away the fineſt, and return the reſt to the mill. When the ore happens to be mixed with ſome metals, which obſtruct its falling to powder, as copper, then they calcine that in an oven, and pound it over again.

In the little mines, where they uſe none but mills with grind-ſtones, they, for the moſt part, grind the ore with water, which makes a liquid mud, that runs into a receiver; whereas, when it is ground dry, it muſt be afterwards ſteeped, and well moulded together with the feet for a long time. To this purpoſe they make a court or floor, where they diſpoſe that mud in ſquare parcels about a foot thick, each of them containing half a caxon or cheſt, that is, twenty-five quintals, or 100 weight of ore; and theſe they call Cuerpos, that is, bodies. On each of them they throw about 200 weight of ſea or common ſalt, more or leſs, according to the nature of the ore, which they mould, and incorporate with the earth for two or three days. Then they add to it a certain quantity of quickſilver, ſqueezing a purſe made of a ſkin, into which they put it, to make it fall in drops, with which they ſprinkle the body or maſs equally, according to the nature and quality of the ore. They allow to each maſs ten, fifteen, or twenty pounds; for, the richer it is, the more mercury it requires to draw to it the ſilver it contains: ſo that they know not the quantity, but by long experience. An Indian is employed to mould one of theſe ſquare parcels eight times a day, to the end that the mercury may incorporate with the ſilver. To that effect they often [illegible] with it, when the ore happens to be greaſy, where caution is to be uſed; for they ſay it ſometimes grows ſo hot, that they neither find mercury nor ſilver in it; which ſeems incredible. Sometimes they alſo ſtrew among it ſome lead or tin-ore, to facilitate the operation of the mercury, which is ſlower in very cold weather, than when it is temperate; for which reaſon at Potoſi and Lipes, they are often obliged to mould the ore during a whole month, or a month and an half: but, in more temperate climates, the amalgama is made in eight or ten days.

To facilitate the operation of the mercury, they in ſome places, as at Puno and elſewhere, make their buiterons or floors on arches, under which they keep fires, to heat the powder of the ore, for twenty-four hours, on a pavement of bricks. When it is thought, that the mercury has attracted all the ſilver, the aſſayer takes a little ore from each parcel apart, which he waſhes in a little earthen plate, or wooden bowl; and, by the colour of the mercury found at the bottom of the bowl, knows whether it has had its effect: for, when it is blackiſh, the ore is too much heated; and then they add more ſalt, or ſome other drug. They ſay, that then the mercury diſpara, that is, ſhoots or flies away. If the mercury is white, they put a drop under the thumb, and, preſſing it haſtily, the ſilver there is amongſt it remains ſticking to the thumb; and the mercury ſlips away in little drops. In concluſion, when they perceive, that all the ſilver is gathered, they carry the ore to a baſon, into which a little ſtream of water runs, to

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waſh it, much in the ſame nature as I ſhall ſhew they waſh the gold, excepting that this being only a mud without ſtones, inſtead of an hook to ſtir it, an Indian ſtirs it with his feet, to diſſolve it. From the firſt baſon it falls into a ſecond, where another Indian is, who ſtirs it again, to diſſolve it thoroughly, and looſen the ſilver. From the ſecond it paſſes into a third, where the ſame is repeated, to the end that what has not ſunk to the bottom of the firſt and ſecond, may not eſcape the third.

When all has been waſhed, and the water runs clear, they find at the bottom of the baſons, which are lined with leather, the mercury incorporated with the ſilver; which they call lapella. It is put into a woollen bag, hanging up, for ſome of the quickſilver to drain through. They bind, beat and preſs it as much as they can, laying a weight upon it, with flat pieces of wood; and, when they have got out as much as they can, they put the paſte into a mould of wooden planks, which, being bound together, generally form the figure of an octagon pyramid, cut ſhort, the bottom whereof is a copper-plate, full of little holes. There they ſtir, in order to faſten it; and, when they deſign to make many Pinnas, as they call them, that is, lumps of various weights, they divide them with little beds or layers of earth, which hinder their coming together. To that end the pella or maſs muſt be weighed, deducting two-thirds for the mercury that is in it; and they know, within a ſmall matter, what nett ſilver there is. They then take off the mould, and place the pinna or maſs, with its copper baſe, on a trivet, or ſuch-like inſtrument, ſtanding over a great earthen veſſel full of water, and cover it with an earthen cap or covering, which they again cover with lighted coals; which fire they feed for ſome hours, that the maſs may grow violent hot, and the mercury that is in it evaporate in ſmoke; but that ſmoke having no paſſage out, it circulates in the hollow that is between the maſs and cap, or covering, till, coming down to the water that is underneath, it condenſes, and ſinks to the bottom again, converted into quickſilver. Thus, little of it is loſt; and the ſame ſerves ſeveral times: but the quantity muſt be increaſed, becauſe it grows weak. However, they formerly conſumed at Potoſi 6 or 7000 quintals or hundred weight of quickſilver every year, as Acoſta writes; by which a judgment may be made of the ſilver they got.

When the mercury is evaporated, there remains nothing, but a ſpongy lump of contiguous grains of ſilver, very light, and almoſt mouldering, which the Spaniards call la Pinna; and is, as I obſerved, a contraband commodity from the mines, becauſe, by the laws of the kingdom, they are obliged to carry it to the king's receipt, or to the mint, to pay the fifth to his Majeſty there. Thoſe maſſes are caſt into ingots, on which the arms of the crown are ſtamped, as alſo that of the place where they were caſt, their weight and quality, with the fineneſs of the ſilver to anſwer the meaſure of all things, according to an antient philoſopher. It is always certain, that the ingots, which have paid the fifth, have no fraud in them; but it is not ſo with the pinnas or maſſes not caſt. Thoſe who make them, often convey into the middle of them, iron, ſand, and other things to increaſe the weight; ſo that, in prudence, they ought to be opened, and made red-hot at the fire, for the more certainty; for if falſified, the fire will either turn it black, or yellow, or melt it more eaſily. This trial is alſo to extract a moiſture they contract in places where they are laid on purpoſe to make them the heavier. In ſhort, their weight may be increaſed one-third by dipping them in water when they are red-hot, as alſo by ſeparating the mercury, with which the bottom of the maſs is always more impregnated than the top. It alſo ſometimes happens, that the ſame maſs is of different fineneſs. The ſtones taken from the mines, the ore, or, to ſpeak in the language of Peru, the mineray, from which the ſilver is extracted, is not always of the ſame nature, conſiſtence, or colour. There are ſome white and grey, mixed with red

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or bluiſh ſpots, which is called plata blanca, or white ſilver. The mines of Lipes are moſt of them of this ſort. For the moſt part there appear ſome little grains of ſilver, and very often ſmall branches extending along the layers of the ſtone. There are ſome, on the other hand, as black as the droſs of iron, in which the ſilver does not appear, called negrillo, that is, blackiſh. Sometimes it is black with lead, for which reaſon it is called plomo ronco, that is coarſe lead, in which the ſilver appears as if ſcratched with ſomething that is harſh; and it is generally the richeſt, and got with leaſt charge, becauſe, inſtead of moulding it with quick-ſilver, it is melted in furnaces, where the lead evaporates by dint of fire, and leaves the ſilver pure and clean.

From that ſort of mines the Indians drew their ſilver, becauſe, having no uſe of mercury, as the Europeans have, they only wrought thoſe whoſe ore would melt; and, having but little wood, they heated their furnaces with ylo, and the dung of llamas, or ſheep, and other beaſts, expoſing them on the mountains, that the wind might keep the fire fierce. This is all the ſecret the hiſtorians of Peru ſpeak of, as of ſomething wonderful. There is another ſort of ore like this, as black, and in which the ſilver does not appear at all; on the contrary, if it be wetted, and rubbed againſt iron, it turns red; for which reaſon it is called roſicler, ſignifying the ruddineſs of the dawn of the day. This is very rich, and affords the fineſt ſilver. There is ſome that glitters like talc or iſinglaſs; this is generally naught, and yields little ſilver; the name of it is Zoroche; the peel, which is of a yellowiſh red, is very ſoft, and broken in bits, but ſeldom rich; and the mines of it are wrought on account of the eaſineſs of getting the ore: there is ſome green, not much harder than the laſt, called cobriſſo, or copperiſh; it is very rare: however, though the ſilver generally appears in it, and it is almoſt mouldering, it is the hardeſt to be managed, that is, to have the ſilver extracted from it; ſometimes, after being ground, it muſt be burnt in the fire, and ſeveral other methods uſed to ſeparate it; doubtleſs, becauſe it is mixed with copper. Laſtly, there is another ſort of very rare ore, which has been found at Potoſi, only in the mine of Cotamiſo, being threads of pure ſilver, intangled or wound up together like horſe laces, ſo fine, that they call it arana, ſpider, from its reſemblance to a cobweb.

The veins of mines, of what ſort ſoever they be, are generally richer in the middle than towards the edges; and, when two veins happen to croſs one another, the place where they meet is always very rich. It is alſo obſerved, that thoſe which lie north and ſouth, are richer than thoſe which lie any other way. Thoſe which are near places where mills can be erected, and that are more commodiouſly wrought, are often preferable to the richer, that require more expence; which is the reaſon, that, at Lipes, and at Potoſi, a cheſt of ore muſt yield ten marks, of eight ounces each mark, of ſilver, to pay the prime charges: and, at thoſe of the province of Tarama, five pay them. When they are rich, and ſink downwards, they are ſubject to be flooded; and then they muſt have recourſe to pumps and machines, or elſe drain them by thoſe they call cocabones, being paſſages made in the ſide of the mountain for the water to run out at; which often ruin the owners, by the exceſſive expence they inſenſibly draw them into. There are other ways of ſeparating the ſilver from the ſtones that confine it, and from the other metals that are mixed with it, by fire, or ſtrong ſeparating waters, made uſe of at ſome mines, where other means fail, and where they make a ſort of ingots, which they call bollos; but the moſt general and uſeful method is to make pinnas or maſſes, above mentioned, which are preferred to other forms, on account of their eaſineſs in making, and that they ſave fire, and other ingredients; which is a thing of great conſequence in works of this nature, where, to ſave in the expence, has the ſame effect as finding the mine.

It is very natural to ſuppoſe, that, in mines, as well as other things, there happen great variations in their products, and in the value of the product. The mines which very lately yielded moſt ſilver, are thoſe of Oruro, a little town eighty leagues from Arica. In the year 1712, one ſo rich was found at Ollachea, near Cuſco, that it yielded 2500 marks, of eight ounces each, out of every cheſt, that is almoſt one-fifth part of the ore; but it has declined much, and is now reckoned but among the ordinary ſort. Next to theſe are thoſe at Lipes, which have had the ſame fate. Laſtly, thoſe at Potoſi yield but little, and cauſe a vaſt expence by reaſon of their great depth. But, notwithſtanding the mines here are far diminiſhed in their product, yet the quantity of ore that has been already wrought, and lain many years upon the ſurface, is thought capable to yield a ſecond crop; and, when I was at Lima, they were actually turning it up, and new-milling it, with great ſucceſs; which is a proof, that theſe minerals generate in the earth like all other inanimate things; and it is likewiſe certain, from all accounts of the Spaniards, that gold and ſilver, as well as other metals, are continually growing and forming themſelves in the earth. This opinion is verified by experience in the mountain of Potoſi, where ſeveral mines have fallen in, and buried the workmen, with their tools; after ſome years, they have dug the ſame place, and diſcovered many bones, and pieces of wood, with veins of ſilver actually running through them. Theſe mines belong to him who firſt diſcovers them: he immediately preſents a petition to the magiſtrates to have ſuch a piece of earth for his own; which is no ſooner done than granted: they meaſure eighty Spaniſh yards in length, and forty over, which is about 1200 foot in length, and 100 in breadth, and yield it to the diſcoverer, who chuſes what ſpace he thinks fit, and does what he pleaſes with it. Then they meaſure juſt the ſame quantity for the king, which is ſold to the beſt bidder, there being many who are willing to purchaſe a treaſure which may prove ineſtimable. If any other perſon has a mind to work part of the mine himſelf, he bargains with the proprietor for a particular vein. All that ſuch an one digs out is his own, paying the king's duty, which is for gold a 20th part, and for ſilver a 5th; and ſome landlords find ſuch an account in letting out their ground, and their mills, that they live upon the profit.

At Copiapo there are gold mines juſt beyond the town, and all about the country likewiſe, which have brought many purchaſers and workmen thither, to the great damage of the Indians; for the Spaniſh magiſtrates take away not only their lands, but their horſes, which they ſell to the new proprietors, under pretence of ſerving the king, and improving the ſettlements: there is alſo a great deal of magnet and lapis lazuli, which the Indians know not the value of: and, ſome leagues in the country, there is plenty of ſalt and ſaltpetre, which often lies an inch thick on the ground. About an hundred miles eaſt, upon the Cordelier mountains, there is a vein of ſulphur two feet wide, ſo fine and pure, that it needs no cleaning. This part of the country is full of all ſorts of mines; but, in other reſpects, is ſo barren, that the natives fetch all their ſubſiſtence from Coquimbo, and that way, being a mere deſert for 300 miles together; and the earth abounds ſo much with ſalt and ſulphur, that the mules often periſh for want of graſs and ſweet water. There is but one river in 200 miles, which the Indians call Ancalulae, or Hypocrite, becauſe it runs only from ſun-riſe to ſun-ſet: this is occaſioned from the great quantity of ſnow melted from the Cordeliers in the day-time, which freezes again at night, where the cold is often ſo great the people's features are quite diſtorted. Hence Chili takes its name, Chile ſignifying cold in the Indian language; and we are certainly informed by the Spaniſh hiſtorians, that ſome of their countrymen, and others, who firſt traded this way, died ſtiff with cold upon their mules; for which reaſon the road is now always lower towards the coaſt.

The mine countries are all so cold and barren, that the inhabitants get most of their provision from the coast; this is caused by the salts and sulphurs exhaled from the earth, which destroy the seed of all vegetables. The Spaniards who live thereabout, find them so stifling, that they drink often of the mattea, to moisten their mouths. The mules, that trip it nimbly over the mountains, are forced to walk gently about the mines, and stop often, to fetch breath. If these vapours are so strong without, what must they be within the mine itself, where if a fresh man goes, he is suddenly benumbed with pain? And this is the case of many an one; but this distemper seldom lasts above a day, and they are not so affected a second time; but vapours have often burst out so furiously, that workmen have been killed on the spot, so that one way or other multitudes of Indians die in their selling. An observation occurs here to my memory, that upon the road to Pama, at night, when we lay down to sleep, our mules went eagerly to search for a certain root, not unlike a parsnip, though much bigger, which affords a great deal of juice, and, in such a sandy plain, often serves instead of water: but when the mules are very thirsty, and they cannot easily rake up the root with their feet, they will stand over it and bray, till the Indians come to their assistance. One would wonder, that, throughout all this part of the world, that portion of the country should be best inhabited which is most barren and unwholsome, while those spots, that seem to vie with Paradise itself for beauty and fertility, are but thinly peopled. Yet, when one considers, that it is not the love of ease, but the thirst of wealth, that draws people hither, the difficulty is very easily resolved; and we see at once, how much the hopes of living rich, gets the better of the hopes of living; as if the sole end, for which a man was created, was to acquire wealth, at the expence of health and happiness.

It is generally understood, that silver is the peculiar wealth of Peru; and the Spaniards usually talk, as to gold mines, of those that are to be found in Chili; but, notwithstanding this, there are one or two washing-places for gold in the south part of Peru, near the frontiers of Chili. About the year 1739, there were two surprising large lumps of virgin gold found in one of these places, one of which weighed thirty-two pounds complete, and was purchased by the Count de Monclod, the Viceroy of Peru, and presented to the king of Spain; the other was shaped somewhat like an ox's heart; it weighed twenty-two pounds and an half, and was bought by the corregidor of Arica. To find these lavadores, or washing-places, they dig in the corners of a little brook, where, by certain tokens, they judge the grains of gold to be. To assist in carrying away the mud, they let a fresh stream into it, and keep turning it up, that the current may send it along. When they are come to the golded sand, they turn off the stream another way, and dig with mattocks; and this earth they carry upon mules to certain basons, joined together by small channels; into these they let a smart stream of water, to loosen the earth, and carry all the gross part away. The Indians standing in the basons, and throwing out all the stones, the gold at bottom is still mixed with a black sand, and hardly to be seen, till it be farther cleared and separated, which is easily done. But these washing-places differ; for, in some, there are gold grains as big as bird-shot; and in one, belonging to the priests near Valparaiso, some were found, from two or three ounces to a pound and an half weight. This way of getting gold is much better than from the mines; here is no need of iron crows, mills, or quicksilver; so that both the trouble and expence are much less. The Creolians are not so curious in washing their gold, as the people in Europe; but great plenty makes them careless in that and many other articles.

It would be needless to attempt in this place a description of the large kingdom of Chili, because it has been already done by many authors: all that is designed here, is

to give ſuch a repreſentation of it, as may enable the reader to comprehend the nature of its trade, the manner in which it is connected with the general commerce of Peru, by which the wealth drawn from it is tranſmitted to Europe. It is in length, from north to ſouth, about 1200 miles, the breadth of it very uncertain; the air is very temperate and wholeſome, unleſs rendered otherwiſe by peſtilential exhalations, that are moſt common after earthquakes, to which this country is very ſubject. The winter rains, during the months of May, June, July, and Auguſt, are exceſſively heavy; but then, for eight months together, they have, generally ſpeaking, fine weather. The ſoil is prodigiouſly fertile, where it admits of cultivation; ſuch fruit trees as are carried thither from Europe, come to the greateſt perfection: ſo that the fruit is coming forward all the year; and it is common to ſee apple-trees in that ſituation, which we ſo much admire in orange-trees; that is to ſay, with bloſſoms, apples juſt formed, green apples, and ripe fruit all at the ſame time. The valleys, wherever they have any moiſture, wear a perpetual verdure; and the hills are covered with odoriferous herbs, very uſeful in phyſic. There are trees of all ſorts, and fit for every kind of uſe; inſomuch that, independent of its gold mines, Chili might be well accounted one of the richeſt and fineſt countries in the univerſe. And, indeed, there are ſome places in it, which are as beautiful as any thing the warmeſt imagination can paint: for inſtance, the town of Coquimbo, in lat. 30 ſouth, a ſhort mile from the ſea, ſtanding on a green riſing ground, about ten yards high, which nature has regularly formed like a terrace, north and ſouth, in a direct line, of more than half a mile, turning at each ſide to the eaſtward. The firſt ſtreet makes a delightful walk, having the proſpect of the country round it, and the bay before it; all this is ſweetly placed in a valley ever green, and watered with a river, which, taking its riſe from among the mountains, flows through the vales and meadows, in a winding ſtream, to the ſea.

But notwithſtanding all theſe advantages, this vaſt country is very thinly inhabited, inſomuch that, through its whole extent, there are ſcarce five towns that deſerve that appellation, and but one city, which is that of St. Iago; throughout all the reſt there are only farms, which they call Eſtancias, ſo remote from one another, that the whole country, as I have been informed from good hands, cannot raiſe 20,000 whites fit to bear arms, and particularly St. Iago 2,000; the reſt are all meſtizos, mulattos, and Indians, whoſe number may be three times as great, without including the friendly Indians beyond the river Bio-bio, who are reckoned to amount to 15,000, whoſe fidelity, however, is not much to be depended on. The trade of this country is chiefly carried on by ſea, and is at preſent rather in a declining than flouriſhing condition. The port of Baldivia was formerly very famous, on account of the very rich mines of gold that were in its neighbourhood, which are now, in a great meaſure, diſuſed; ſo that it is only kept as a garriſon, and ſerves in this reſpect to Peru, as the fortreſſes on the Barbary coaſt do to Spain, viz. to receive malefactors, who are ſent thither to ſerve againſt the Indians. All the trade of that town conſiſts in ſending ten or twelve ſhips a-year to Peru, laden with hides, tanned leather, ſalt meat, corn, and other proviſions, which are to be had here in great plenty.

The port of Conception is more conſiderable, by reaſon of their commerce with the Indians, which are not ſubject to the Crown of Spain. Theſe Indians are of a copper colour, have large limbs, broad faces, and coarſe lank hair. The nation of the Puelches differ ſomewhat from the reſt, becauſe amongſt them there are ſome pretty white, and who have a little colour in their cheeks, which is ſuppoſed to be owing to their having ſome European blood in their veins, ever ſince the natives of this country revolted from the Spaniards, and cut off moſt of their garriſons. They preſerved the women, and

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especially the nuns, with whom they cohabited, and had many children, wh[illegible] sort of natural affection for their mothers country; and, though they are too [illegible] submit to the Spaniards, yet they are not willing to hurt them. These people [illegible] that ridge of the mountains which the Spaniards call La Cordilera; and, as the [illegible] of trading with them is very singular, it may not be amiss to give an account o[illegible]

When the Spanish pedlar, or walking merchant, makes a tour into this co[illegible] goes directly to the cacique, or chief, and presents himself before him without [illegible] a word: the cacique breaks silence first; and says to the merchant, Are yo[illegible] Then he answering, I am come. What have you brought me? replies the ca[illegible] bring you, rejoins the Spaniard, wine (a necessary article!) and such a thing. [illegible] upon the cacique fails not to say, You are welcome. He appoints him a lod[illegible] his own cottage, where his wives and children, bidding him welcome, each [illegible] also demand a present, which he gives, though never so small; at the [illegible] cacique, with the horn-trumpet which he has by him, gives notice to his [illegible] jects of the arrival of a merchant, with whom they may trade: they come [illegible] commodities, which are knives and axes, combs, needles, thread, look[illegible] [illegible], &c. The best of all would be wine, were it not dangerous to [illegible] [illegible], to make them drunk; for then they are not safe among them, [illegible] [illegible] to kill one another. When they have agreed upon the barter, they [illegible] [illegible] home without paying; so that the merchant delivers all without [illegible] [illegible], or seeing any of his debtors: in short, when he designs to go away, [illegible] [illegible] payment by sounding the horn again; then every man honestly bring [illegible] [illegible]; and, because these consist of mules, goats, and especially oxen [illegible] [illegible] a sufficient number of men to conduct them to the Spanish [illegible] [illegible] has been said may be observed, that as much civility and honesty is to be [illegible] among these people, whom we call savages, as among the most polite and well-gov[illegible] nations.

That great number of bullocks and cows, which are consumed in Chili, where [illegible] re-dance are slaughtered every year, comes from the plains of Paraguay, whi[illegible] the covered with them. The Puelches bring them through the plain of Tapapapa, in[illegible] the by the Pteheingues, or unconquered Indians, being the best pass to cross the mou[illegible] eater because divided into two hills, of less difficult access than the others, which are [illegible] so impassable for mules. There is another, eighty leagues from La Conception, [illegible] burning mountain, called Silla Velluda, which now and then casts out fire, and [illegible] the times with so great a noise, that it is heard in the city; that way the journey [illegible] from much shortened, and they go in six weeks to Buenos Ayres. By these co[illegible] [illegible] the they generally make good all the herds of beeves and goats, which they sla[illegible] though by thousands, for tallow and lard, made by trying up the fat and the [illegible] not only bones, which, throughout all South America serves instead of butter [illegible] mules, by them in their sauces: the flesh they either dry in the sun, or in the sm[illegible] round it instead of salting as is used in France. These slaughters also afford the [illegible] there is especially the goats-skins, which they dress like Morocco leather, by them call[illegible] thence vanes, and sent to Peru to make shoes, or for other uses. Besides the trade [illegible] trouble tallow, and salt meat, the inhabitants of La Conception deal in corn, with wh[illegible] though the every year, lade eight or ten ships, of forty or fifty tons burden, for the port [illegible] longer besides the meal and biscuit they supply the French ships with, that take in [illegible] Ayres there to proceed to Peru, and to return to France. All this would be inc[illegible] which is a for so fine a country, since, if the land were well improved, it is so extraord[illegible] clear and so easy to till, that they only scratch it with the plough for the most [illegible]

[illegible] single crooked branch of a tree, drawn by two oxen; and, though the grain is [illegible] covered, it seldom produces less than an hundredfold: nor do they take any [illegible] pains in procuring their vines to have good wine; but, as they know not how to [illegible] the jars they put it into, they are fain to pitch them, which, together with the [illegible] of the goats-skins, in which they carry it about, gives it a bitterness like treacle, [illegible] scent, to which it is hard for strangers to accustom themselves. The fruit grows [illegible] the same manner, without any industry, on their part, in grafting: apples and pears [illegible] naturally in the woods; and, considering the quantity there is of them, it is hard [illegible] comprehend how these trees, since the conquest, could multiply, and be diffused [illegible] many parts, if it is true there were none before, as they affirm. The mines of [illegible]ya and Quilacura lie within four leagues of this port, and afford vast quantities [illegible] gold, and the Estancia de Rel, or King's Farm, which is also at no great distance, [illegible] very far the most plentiful Lavadero, or washing-place, in all Chili, where there [illegible] sometimes found lumps of pure gold of a prodigious size. The mountains of La [illegible]dillera are reported to be a continual chain of mines, for many hundred miles to[illegible]her; which is so much the more probable, because, hitherto, scarce any of these [illegible]ntains have been opened, but vast quantities of metals have been found in them [illegible]icularly copper, remarkably fine, of which all the artillery in the Spanish W[illegible]ies, or at least in the South Seas, are cast.

There is another considerable port in Chili, and indeed, the most considerable [illegible] all, which is that of Valparaiso, which is esteemed one of the best harbours in the [illegible] Seas. It lies upon a river, fifteen leagues below St. Iago, the capital of Chi[illegible]. [illegible] port all the riches of the gold mines behind it, and on every side, are brough[illegible] [illegible]larly from those of Tiltil, which are immensely rich, and lie between this port [illegible] the city of St. Iago. The gold here is found in a very hard stone, some of which [illegible]les, and betrays the inclosed treasure to the eye; but most of it has not the least [illegible] of gold, but appears to be an hard harsh kind of stone, of very different colours, [illegible] white, some red, some black. This ore, broken to pieces, is ground in a mill, [illegible] help of water, into a gross powder, with which quicksilver is afterwards mixed: [illegible] paste they let in a sharp stream of water; which having reduced it to a kind of [illegible] the earthy particles are carried off by the current, and the gold and quicksilver [illegible]tated, by their own weight, to the bottom: when this mud has settled a little [illegible] sort of paste, they put it into a linen bag; strain it very hard, by which opera[illegible] the mercury is driven out, or at least the greatest part of it; and the remainder [illegible]vaporate by the help of fire; so that they have all the gold together in a little [illegible] like a pine-apple, and thence it derives its name of Pinna. In order to clear [illegible] from the silver it is first impregnated with, the lump must be run; and then [illegible] the exact weight, and the true fineness; it is not done any otherwise there. [illegible]ghtiness of the gold, and the facility of its making amalgama, or paste, with [illegible]ury, make the dross immediately part from it: this is an advantage the gold[illegible] have over those of silver; they every day know what they get; whereas the [illegible] sometimes do not know it till two months after, as has been said in another [illegible] According to the nature of the mines, and the richness of the veins, every [illegible] fifty quintals, that is, hundred weight, yields four, five, or six ounces: when [illegible] but two, the miner does not make good his charge, which often happens; but [illegible] sometimes good amends made him, when he meets with good veins; for [illegible] mines are, of all mines, those which produce metals the most unequally. They [illegible] vein, which grows wider, then narrower, and sometimes seems to be lost in a [illegible] of ground. This sport of nature makes the miners live in hopes of finding

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what they call the purſe, being the ends of veins, ſo rich, that they have ſometimes made a man wealthy at once: and this ſame inequality ſometimes ruins them; which is the reaſon, that it is more rare to ſee a gold-miner rich than a ſilver-miner, or of any other metal, though there be leſs expence in drawing it from the mineral as ſhall be ſaid hereafter. For this reaſon, alſo, the miners have particular privileges; for they cannot be ſued to execution on civil accounts; and gold pays only a twentieth part to the king, which is call Covo, from the name of a private perſon, to whom the king made the grant, becauſe they uſed before to pay the fifth, as they do of ſilver.

On the deſcent of this mountain, there runs, during the winter, or rather during the rainy ſeaſon, a pretty briſk ſtream of water, which, paſſing through the gold ore, waſhes away abundance of that rich metal as it ripens and breaks from its bed: and therefore, for about four months in the year, this is accounted one of the richeſt lavaderos in Chili; and very well it may, ſince there are ſometimes found pellets of pure gold, of the weight of an ounce. At Palma, which is but four leagues from Valparaiſo, there is another rich lavadero; and every where throughout the country, and the fall of a brook, or rivulet, is attended more or leſs with theſe kind of golden ſhowers, ately the richeſt of which fall into the laps of the Jeſuits, who farm or purchaſe abundance pe- mines and lavaderos, which are wrought for their benefit by their ſervants. The have about this port is exceſſive rich and fruitful; ſo that forty ſhips a year go from the nce to Lima, laden with corn; and, notwithſtanding their prodigious exportation man, at commodity is ſo cheap here, where money at the ſame time is ſo plenty, that one to gliſh buſhel may be bought for leſs than three ſhillings; and it would be much cheap till, if all the country could be cultivated; but, as they have dry weather for eight the months together, this is impoſſible, except where there are brooks or little rills running om the mountains through the vales.

But before we cloſe this ſubject, it may not be amiſs to obſerve, that there is a great de carried on through all Chili, from the North Seas, by the way of Buenos Ayres, which they receive ſome European goods, and a very large balance of ſilver in re- for their commodities. This is, perhaps, the greateſt inland commerce in the d; for the road, from Buenos Ayres to Potoſi, is 1500 miles; and, though the nce from Valparaiſo be not above 160 leagues more, yet it is croſſed with greater ulty than all the reſt; becauſe they are obliged to paſs that chain of mountains ſo mentioned, called by the Spaniards La Cordillera, which paſſage can be attempted during the three firſt months in the year, when the paſſages are open, and the hants come from Mendoza, which is an inland town, about 300 leagues from os Ayres to the city of St. Iago, which lies at the opening of the paſſes from the leras. This journey through the mountains takes up ſix or ſeven days, though bove ſixty leagues; and the paſſengers are obliged to carry with them not only ions for themſelves and their attendants, but provender likewiſe for their mules, hole road being a continual track of rocks and precipices, and the country round alſo exceſſively barren, and withal ſo expoſed to ſnows in the winter, that there is ng in it. The journey, however, from St. Iago to the mines, and from thence to araiſo, is equally ſafe and pleaſant; and the merchants have nothing to trouble them but the fear of ſtaying too long, and loſing their paſſage home through the mins; in caſe of which they muſt be obliged to ſtay at leaſt nine months longer they intended. The reader will obſerve, that this journey, from Buenos Ayres to araiſo, is directly athwart the whole continent of South America; which is a

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clear proof of the mighty extent of the Spaniſh empire, which reaches here from ſe to ſea. On the whole, though a very great part of the country be abſolutely deſert and, in ſome places where it is inhabited, the people do not acquire great fortunes yet, unqueſtionably, the Spaniards ſettled in Chili acquire annually immenſe riches ſince, as we obſerved before, the country is very thinly peopled, and all the gold that is drawn from the mines, or lavadores, muſt be divided amongſt them.

Yet it is agreed, that a great part of the inhabitants do not ſeem to abound in wealth; which, however, may be very well accounted for, if we conſider, that ſuch as deal in cattle, corn, and the other product of the country, acquire but moderate fortunes, and ſuch as are concerned in mines are frequently ruined, by launching into too great expences about them. But, after all, ſuch as are eaſy in their circumſtances, and, in conſequence of that eaſe, retire to St. Iago, live in ſuch a manner, as ſufficiently demonſtrates the riches of Chili, ſince all their utenſils, even thoſe that are moſt common, are of pure gold; and it is believed that the wealth of that city alone cannot fall ſhort of 20,000,000. Add to this, that the gold mines are continually increaſing, and it is only for want of hands that they are not wrought to infinitely more advantage, than already diſcovered, and neglected, being ſufficient to employ 40,000 men. It may be likewiſe obſerved, that the frauds practiſed for deceiving the King increaſe daily, and, as they meaſure the riches of the Spaniſh Weſt Indies by the ſtandard of the King's revenue, this muſt neceſſarily make them appear poorer than they really are. We have an inſtance of this in the mines of Potoſi, which are ſaid to yield leſs than they did formerly; yet, on a computation for fifty years, the revenue from thoſe mines has amounted to 220,000 peſos of thirteen reals each; which ſhews that the annual produce of theſe mines, for which duty is paid, amounts nearly to 2,000,000 pieces of eight per annum; and we believe all that the King does not receive above half of what is due: and from this example may judge of the reſt.

As the policy of the Spaniards conſiſts chiefly in endeavouring, by all ways and means poſſible, to reſtrain the vaſt riches of thoſe extenſive dominions from falling into other hands, ſo the knowledge that other nations have of the mighty wealth of theſe countries, on the one hand, and of the great demand for European manufactures among their inhabitants, on the other, has excited almoſt every nation in Europe to practiſe all methods poſſible, in order to gain a ſhare in them; and this with ſo good effect, that it is very doubtful, whether any conſiderable part of the riches in the Weſt Indies centers among the inhabitants of Old Spain. This will appear very plain to the reader, if he conſiders that, in the firſt place, the very trade carried on from Spain is of much greater conſequence to foreigners, than to the Spaniards themſelves; for, as there are few commodities, and ſcarce any manufactures in that country, the Spaniſh merchants at Cadiz make up their cargoes out of what they purchaſe from other countries; or rather, the merchants at Cadiz are barely factors for the Engliſh, French and Dutch, whoſe goods they ſend to America, and pay them out of the returns made by the plate fleets. We are likewiſe to conſider, that Spain itſelf is a country very ill provided with ſome of the neceſſaries and moſt of the conveniences, of life; ſo that prodigious ſums of money are annually exported to obtain theſe.

But, beſides ſuch drawbacks as thoſe we have mentioned, to which the Spaniards would willingly ſubmit, there are many others, which they are forced to endure; for inſtance, all the negroes they employ in their plantations, where every kind of labour is done by theſe ſort of people, all theſe negroes, I ſay, are purchaſed from foreigners, particularly

particularly the Engliſh and Dutch, at a very large expence every year. Add to this, that, under pretence of furniſhing them with negroes, there is a clandeſtine trade continually carried on from one end to the other of their coaſt, upon the North Sea.

But, in the South Seas, they were pretty ſafe from every thing, but the depredations of pirates, till the laſt general war on account of the ſucceſſion to the crown of Spain; which created a new kind of contraband trade, unknown to former times, I mean, that of the French interlopers, who carried vaſt quantities of goods directly from Europe, into the South Seas, which, till then, ſcarce any other nation had attempted. This was always looked upon with an evil eye by the court of Madrid, as being directly repugnant to the intereſt of Spain, and the maxims of their government; but, as there were many circumſtances at that time which rendered this a kind of neceſſary evil, the Spaniards were forced to ſubmit to it, I mean by Spaniards the inhabitants of Old Spain; for, as to the Creolians, if they had European goods, and at a cheaper rate, it would not give them much concern who took their money for them. The hiſtory of theſe French interlopers is, in itſelf, ſo important as well as curious, and is, at the ſame time, ſo very little known in Eng[illegible], that there is good reaſon to believe it will prove acceptable, and be well received, the rather becauſe it is compoſed of ſuch remarks, as fell immediately within my own sphere of obſervation, and as to the truth of which I am myſelf a competent witneſs: ſo that every thing may be taken for certain, that I advance. I may have leave alſo to put the reader in mind, that, having a great intimacy with moſt of the officers I mention, this enabled me to come at many particulars, which another man, in my ſituation, would have been abſolutely unacquainted with. But to come to matters of fact:

The town of St. Malo has always been noted for good privateers: they annoyed the Engliſh and Dutch very much in their trade during the whole reign of King William, and part of Queen Anne; and though ſome religious-headed people fancy, that money got by privateering will not proſper, yet I may venture to ſay, the St. Malo men are as rich and flouriſhing as any people in France. It has thriven ſo well with them, that all their South Sea trade is owing to their privateering; and, in the late war, they were ſo generous, that they made ſeveral free gifts to Lewis XIV. And though our Engliſh admiralty always kept a ſtout ſquadron cruiſing in the Atlantic Ocean, yet we never took one of their South Sea-men: and my reaſon for it is this; they kept their ſhips extremely clean, having ports to careen at, which we did not think of; for, in the year 1709, when I belonged to Her Majeſty's ſhip the Loe, being one of the convoys that year to Newfoundland, we ſaw upon the coaſt a fifty-gun ſhip, which we chaſed, and ſoon diſcovered ſhe was French built; but ſhe crowded ſail, and left us in a very little time. She had juſt been cleaned at Placentia: and we might well wonder to find ſuch a ſhip in that part of the world; but were afterwards informed by the French priſoners, that ſhe was a Frenchman, and bound to St. Malo, with two or three millions of dollars aboard; and was then ſo trim, that ſhe truſted to her heels, and valued nobody. By their going ſo far to weſtward, and northward withal, they had the advantage of weſterly winds, which ſeldom failed of ſending them into ſoundings at one ſpirt, if not quite home. But ſince Placentia has been yielded to Great Britain, they now make uſe of St. Catherina, the iſland Grande on the coaſt of Braſil, and Martinico in the Weſt Indies.

This trade ſucceeded ſo well, that they all fell into it, ſending every year to the number of twenty ſail of ſhips. I ſaw myſelf eleven ſail together on the coaſt of Chili in the year 1721, among which were ſeveral of fifty guns, and one that could mount ſeventy, called the Flower-de-Luce, formerly a man of war. This being contrary

to the Aſſiento treaty between Spain and Great Britain, memorials were frequently preſented at Madrid; and the king of Spain, willing to keep his engagements with England, reſolved to gratify the Britiſh court, by deſtroying the French trade to the South Sea. His Catholic Majeſty knew there was no way to do this, but by a ſquadron of men of war; he knew alſo, that few of his own ſubjects were acquainted with the navigation of Cape Horn, or could bear the extreme rigour of the climate; therefore was obliged to make uſe of foreigners for this expedition; and three of the four ſhips that he ſent, were not only manned with, but commanded by Frenchmen. The firſt was the Glouceſter, of fifty guns and 400 men, formerly an Engliſh man of war; the ſecond was the Ruby, fifty guns, 350 men, another Engliſh ſhip; the third was a frigate of forty guns, and 200 men; the fourth was the Leon Franco, a Spaniſh man of war, of ſixty guns, and 450 men, all Spaniards. Monſieur Martinet, a French gentleman, was commodore of this ſquadron, and commanded the Pembroke; M. le Jonquiere had the Ruby; the reſt I do not recollect. The French performed their navigation well enough, and got round the Cape, though it was in the middle of winter; but the laſt of the four, manned by the Spaniards, after ſeveral attempts, could not weather Cape Horn, but was forced back to the river of Plate, where, at laſt, the ſhip was unfortunately caſt away. It looks as if, by this expedition, an experiment was made to ſee if the Spaniards were hardy enough to go through this terrible navigation; but, as they have little or no trade into any cold climates, and unuſed to hard work, it is no wonder they failed in that point. The Biſcaneers, indeed, are robuſt fellows enough; and, if the Leon Franco had been manned with them, ſhe had certainly doubled the Cape with the other three ſhips; but the Spaniards in general, ever ſince acquiring their poſſeſſions in America, are grown ſo delicate and indolent, that it would be hard to find an intire ſhip's company able to perform that navigation.

The prodigious advantage of the trade of Chili this way is ſo manifeſt, that his Catholic Majeſty is obliged by treaties to ſhut out all nations, as well as the Engliſh, though he makes nothing of it himſelf; and it is very rare that a Spaniſh ſhip has gone by Cape Horn: from hence ariſes the extraordinary price all European goods fetch at Chili and Peru. I have been told at Lima, that they are often ſold at 400 per cent. profit; and, I may ſay, the goods that are carried from France by Cape Horn, are in themſelves 50 per cent. better than thoſe that go in the flota of Cales to Carthagena or La Vera Cruz; becauſe the former are delivered freſh and undamaged in ſix months, whereas the other are generally eighteen months before they can come to Chili; ſo that the French, during the importing time, made their markets, furniſhed themſelves with proviſion, and got home again in twelve or fourteen months time. When Martinet arrived at Chili in the year 1717, with the king of Spain's commiſſion to take or deſtroy all his countrymen that were trading clandeſtinely, he ſoon found employment for his three ſhips, the fourth being loſt, as I have obſerved; and of fourteen ſail of St. Malo men, there was but one eſcaped him, ſhe being land-locked in a little creek, where ſhe lay hid, till ſhe was got to leeward; after which ſhe weighed, and came away with half her cargo unſold. Though all this was to execute the orders of his Catholic Majeſty, and doing a ſenſible pleaſure to the Britiſh South Sea Company, yet the Creole Spaniards, eſpecially the trading part of them, found themſelves almoſt ruined by it, becauſe it hindered the circulation of money, and ſpoiled buſineſs, ſo that they could not bear the ſight of the French men of war, though they liked the French merchantmen well enough. On the other hand, the French, imagining they had done the Spaniards effectual ſervice, expected, no doubt, civil treatment in return, while they ſtaid among them. But, as ſoon as Martinet brought his prizes into Calao, and the

Frenchmen

Frenchmen had received their proper ſhares, they, forgetting th.. old antipathy of the Spaniſh to the French nation, gave themſelves extravagant airs aſhore, by dancing and drinking; and this ſtill incenſed the Creolians more againſt them, who called them cavachos and renegados, for falling foul on their own countrymen. From one thing or other, their mutual quarrels grew ſo high, that the Frenchmen were forced to go in parties about Lima and Calao, the better to avoid public outrages and affronts. At laſt, a young gentleman, who was enſign on board the Ruby, and nephew to Captain Jonquiere, was ſhot from a window, and the malefactor took refuge in the great church at Calao. Martinet, Jonquiere, and other captains, joined in a petition to the viceroy, that the murderer might be delivered to juſtice; but the viceroy, being an archbiſhop, would by no means violate the rights of the church to humour any body; upon which they ordered all their men on board by public beat of drum, and brought their three ſhips, with their broadſides, to bear on the town of Calao, threatening to demoliſh the houſes and fortifications, unleſs the aſſaſſin was delivered up or executed. All this bluſtering could not prevail with the viceroy to give them any ſatisfaction, though they had ſeveral other men killed beſides that gentleman.

At laſt, Jonquiere, unwilling to uſe extremities, and no longer able to bear the place where his nephew was murdered, obtained of his commodore Martinet, that he might make the beſt of his way home. About this time, many fathers, and many rich paſſengers, were got together at the town of Conception, intending, when this ſquadron came by, to take their paſſage to Europe; for they knew, that all ſhips bound to Cape Horn muſt touch at Conception, or thereabouts, for proviſion: herein Jonquiere got ſtart of his commodore, having now the advantage of ſo many good paſſengers in his ſhip; for, as the king of Spain has no officers at Conception to regiſter the money ſhipped there, ſo it is unknown what vaſt ſums thoſe paſſengers and miſſioniaries put on board the Ruby. By this opportunity, the padres and others gained two great advantages; firſt, they were ſpared the trouble of a voyage to Panama or Acapulco, and thence traverſing the continent to Porto Bello, or La Vera Cruz, where they muſt have had their coffers viſited, to ſee if the indulto to his Majeſty was fairly accounted for; and then they ſaved every ſhilling of that indulto, or duty, becauſe the Ruby touched firſt in France, where no cognizance at all was to be taken of the affair; ſo that as they ſaved one moiety of the duty payable in America, they likewiſe got clear of the other payable in Spain; becauſe the ſhip arrived in France, where they put all the money on ſhore. There was on board the Ruby, beſides theſe paſſengers money, a conſiderable ſum ariſing to his Catholic Majeſty for the confiſcation of the thirteen interlopers taken by this ſquadron; all which together, I was well informed, amounted to four millions of dollars aboard that ſhip: what a fine booty then we miſſed through Shelvocke's obſtinate conduct? For, when this ſame ſhip the Ruby found us in the harbour of St. Catherine's, Jonquiere's company, as I ſaid before, were ſo infirm, that he had not more than ſixty ſound men out of four hundred, ſo that he really was afraid of us, and would not even ſend his boat aſhore to the watering-place, where we kept guard, and our coopers and ſailmakers were at work, till he had firſt aſked our captain leave; nor is this at all ſtrange, for underſtanding we had a conſort, he was really in pain all the time he was there, leſt the Succeſs ſhould come in.

After Captain Martinet had cleared the coaſt of Peru and Chili of his countrymen, he ſent expreſs with the news to Madrid, his brother-in-law Monſieur de Grange, who came by way of Porto Bello, Jamaica, and London. Upon delivering his meſſage, the king aſked him what he ſhould do for him: De Grange humbly begged, that his Majeſty would pleaſe to give him the command of a ſhip to go round Cape Horn again.

He accordingly had the Zelerin of fifty guns: he came firſt to Calais, where the ſhip was getting ready; but was ſurpriſed to find a cold reception from the French merchants, and other gentlemen of his acquaintance reſiding there; for, as there were merchants of ſeveral nations intereſted in the ſhips taken and confiſcated as aforeſaid, they unanimouſly looked upon him, and all the French aboard that ſquadron, as falſe brethren, for ſerving a foreign power to the prejudice of their own countrymen; and, while he expected a valuable cargo conſigned to him, being what he aimed at, he found himſelf quite diſappointed; for no man would ſhip the value of a dollar with him. Captain Fitzgerald, who was then at Cales, ſeeing this, made him a conſiderable propoſal, for the privilege of going his next officer, and to take aboard what goods he could procure in his own name. De Grange, being a little embarraſſed, accepted the offer, and obtained at Court a Commiſſion for him as ſecond captain. Accordingly, they manned the Zelerin chiefly with French and ſome Engliſh ſeamen; and got very well round the Cape, when our two privateers, Succeſs and Speedwell, were known to be in the South Sea, this ſame ſhip Zelerin was one of thoſe ſhips commiſſioned by the Viceroy of Peru to cruiſe for us. Fitzgerald ſold his goods at Lima to great advantage, where he continued, while De Grange ſerved as captain under the admiral Don Pedro Miranda, who took myſelf, and the reſt of us, priſoners. The St. Malo merchants, though great ſufferers by ſo many confiſcations, were not much diſcouraged; for, in the year 1720, we found the Solomon of St. Malo, carrying forty guns, and 150 men, at Hilo, on the coaſt of Chili, with ſeveral ſmall Spaniſh barks at her ſtern. She ſold her cargo in ſix weeks time, got a freſh ſupply of proviſion, and left the coaſt without interruption; for by this time Martinet's ſquadron was all come away.

The Solomon's good ſucceſs gave ſuch encouragement, that they immediately fitted out fourteen ſail together; all which arrived in the South Sea in the beginning of the year 1721, three of whoſe commanders, having the beſt acquaintance among the Creolians, quickly ſold their cargoes, and returned home. About this time the people of Lima judged the Engliſh privateers were gone off the coaſt, at leaſt that no more hoſtilities would be committed, becauſe of the truce made between the two crowns; whereupon the three Spaniſh men of war, fitted out to cruiſe on us, were ordered againſt thoſe freſh interlopers. I was on board the advice-boat, called the Flying-fiſh, in company of the ſaid three men of war, when they came up with the eleven ſail of St. Malo all together, on the coaſt of Chili; and, inſtead of firing upon them, the Spaniards joined them like friends. The French, expecting to be attacked, kept altogether in a line, and dared the men of war to begin. This to me ſeemed new, that three ſuch ſhips, purpoſely fitted for this cruiſe, ſhould, on their own coaſt, decline doing their duty; for, had they proved too weak, they had ports of their own under their lee. In ſhort, the men of war contented themſelves to watch the others motion, keeping them always in ſight; and, when any of the French ſhips ſteered to the ſhore, the Spaniards ſent their pinnace, or long boat, with the Spaniſh flag hoiſted, the ſight of which effectually deterred the Creoles from treating or trading with the French. Thus they made ſhift to hinder all theſe ſhips diſpoſing of their goods, except they were met by chance at ſea, and ſold ſome clandeſtinely. At length, being tired out, the Frenchmen got leave to take in proviſion, and went home with at leaſt half their goods unſold. Notwithſtanding all this, and the ſevere edicts againſt it in France, I know they ſtill continue the trade, though privately; nor is it probable they will ever leave off ſo lucrative a commerce, except ſome other power prevents it.

I ſhall now return to my own affairs, and the manner of my return from that part of the world; a plain relation of which will be a ſufficient refutation of what Captain

Shelvocke

Shelvocke has been pleaſed to deliver to the world in his book upon this ſubject. I have acknowledged the kind reception I met with from the admiral of the South Seas, and the reaſon of his treating us ſo civilly. In eleven months time that I continued at Lima, I think it is but juſtice to mention the ſeveral favours I received, particularly from Don Juan Baptiſta Palacio, a native of Biſcay, and knight of the order of St. James, who came weekly to the priſon while we were there, and gave money to all of us, according to our ſeveral degrees. Captain Nicolas Fitzgerald procured my enlargement by becoming ſecurity for me, gave me money, and furniſhed me with neceſſaries thenceforward to the time of my departure; and gave not only me, but twenty more, a paſſage to Cadiz in a Spaniſh advice-boat, called the Flying-fiſh: Mr. Preſſick, our ſurgeon's mate, acted as ſurgeon in her, receiving wages; and ſo did all our men, being releaſed from priſon to aſſiſt in navigating the veſſel home. For my part, as I was well treated, I would not eat the bread of idleneſs, but kept my watches, as other officers; and, pray, where is the harm of all this? Though Shelvocke had the ſtupidity to call it treaſon; and it muſt appear a very malicious charge, as well as an ignorant one, that, after a man has been driven amongſt the enemy, he muſt be called a traitor for being uſed kindly, and accepting his paſſage back again; that, becauſe I was not murdered there, I ought to be executed at home! This is Shelvocke's great chriſtianity and good conſcience! But, to return to what I was ſaying:—On my arrival at Cadiz, Captain John Evers, of the Britannia, gave me his table, and my paſſage to London; where, upon my arrival, and the repreſentation of my hardſhips, the following perſons of honour and diſtinction were pleaſed to expreſs their concern for my ſufferings, by making me a preſent each of ten guineas; viz. Edward Hughs, William Sloper, and Alexander Strahan, Eſquires; Samuel Winder, Beak Winder, Henry Neal, and John Barnes, merchants; Humphry Thayer, and Thomas Stratfield, druggiſts. This afforded me the ſatisfaction of ſeeing, that ſuch as were the beſt judges, had a proper idea of the miſeries I had ſuſtained, and approved of the manner in which I behaved, the only conſolation which I could receive in the circumſtances in which that unfortunate voyage left me. The fair account I have given of facts, the detail of my proceedings in the Spaniſh Weſt Indies, and the account of what I obſerved worthy of notice during my ſtay in thoſe parts, will, I hope, acquit me in the opinion of every candid and impartial reader, from the aſperſions thrown upon me in Shelvocke's book; and acquire me, what every man would wiſh to have, the approbation of him to whom, of his own free choice, he ſubmits the cenſure of his actions.

AN

HISTORICAL RELATION OF THE KINGDOM OF CHILE,

BY ALONSO DE OVALLE,

OF THE COMPANY OF JESUS,

A NATIVE OF ST. JAGO OF CHILE, AND PROCURATOR AT ROME FOR THAT PLACE.

Printed at Rome by Franciſco Cavallo, 1649, with Licence of his Superiors.

TRANSLATED OUT OF SPANISH INTO ENGLISH *.

The Tranſlator's Preface.

WHEN the tranſlation of the hiſtory of Chile was firſt undertaken, it was more out of conſideration of making that part of the world, ſo remote from ours, better known, as to the geographical part, the natural hiſtory, and the firſt ſettlements of the Spaniards, than to enter into a diſtinct narrative of the events of that invaſion, which contain little inſtruction, being between a people of great arts and abilities on one ſide, and another of great natural courage, and no culture of the mind or body, on the other. The caſe was ſo extravagantly unequal between them, when the odds of guns, armour, horſes, and diſcipline, are weighed againſt nakedneſs, anarchy, panick terrors, and ſimplicity, that it ſeems a kind of prodigy that the love of liberty and a ſtock of natural unpoliſhed bravery, ſhould hold a conteſt with armed avarice, ſpirited by ſuperſtitious zeal, for almoſt a whole century.

The natural hiſtory of Chile is ſo admirably performed, that it may be a model for moſt relations of that kind; for there are exact deſcriptions of all the beaſts, birds, fiſhes, plants, minerals, coaſts, rivers, bays, and inhabitants of the country, that can be wiſhed for. There is, beſides, an excellent account of the climate, the ſeaſons, the winds, the manner of living both of the Indians and the Spaniards. The deſcription of the great Cordillera, or chain of mountains, which runs for almoſt a thouſand leagues in a parallel line with the South Sea, and divides Chile from the *ultra* mountain provinces, is ſo accurate, that nothing of that kind can be more ſo: the narrative of the manner of travelling through thoſe vaſt plains of Cuyo and Tucuman, as far as Buenos Ayres, and the river of Plata; the topographical deſcription of the ſtreights of Magellan, with all its bays, ports, and its whole navigation, are of great inſtruction, as well as very entertaining.

* From Churchill's Collection, vol. iii. third edition 1745. The importance of the countries has been more attended to than ſtrict chronology.

In

In all this the jeſuit, who was the author of this hiſtory, muſt be confeſſed to have deſerved the character of a candid inquiſitive philoſopher; and in what he has performed beſides, about the ſettlements of the Spaniards, he is very particular, eſpecially in his deſcription of the city of St. Jago de Chile; where any one may ſee the progreſs of prieſtcraft in that new world, by the vaſt riches of the convents, monaſteries, and nunneries: but above all the inſtructive chapters of this treatiſe, there is one about the methods of driving a trade between Europe and Chile to and from the Philippines and Eaſt Indies, which contains ſecrets of commerce and navigation, which I wonder how they were publiſhed, and it is poſſible may, ere it be long, be practiſed by the Spaniards and other nations, if the navigation of the Mexican Gulph becomes ſo troubleſome, as it is like to be made by the naval powers of Europe, who ſeem to have choſe thoſe ſeas for the ſcene of all their maritime power to exert itſelf in.

There is a digreſſion about the firſt diſcovery of the iſlands and Continent of America by Columbus, and a progreſſive narration of all the other diſcoveries, as they were made, and by whom, which is very curious; but as it is borrowed from other writers, the author can challenge no other merit than that of a judicious compiler.

All that needs to be added to this preface, is, to let the world know that the tranſlation was firſt encouraged by the Royal Society, of which the tranſlator has the honour to be a member; and that it was two ſummer's work, that it might be the leſs ſubject to errors; and to prevent them, that worthy encourager of all natural knowledge, as well as of his own profeſſion, in which he excels, Dr. Hans Sloane, has contributed very obligingly ſome of his care and attention.

The Author's Preface.

BEING come from the kingdom of Chile into Europe, I obſerved that there was ſo little known of the parts I came from, that in many places the very name of Chile had not been heard of. This made me think myſelf obliged to ſatisfy, in ſome meaſure, the deſire of many curious perſons, who preſſed me to communicate to the world a thing ſo worthy of its knowledge. But I found myſelf in great difficulty how to comply with their preſſing inſtances, being deſtitute of all the materials requiſite for ſuch a work, and at ſuch a diſtance from the place that could furniſh them, that I deſpaired of giving a juſt ſatisfaction: however, in obedience to thoſe whoſe commands I cannot but reſpect, I reſolved to write this account, more to comply with my duty, and give ſome information of thoſe remote regions, than to pretend to a perfect and exact hiſtory, which this relation, in all its parts, (I confeſs,) comes very ſhort of. The reader, then, being thus prepared, will, I hope, have a regard to the little help I could have in this work, at ſuch a diſtance as Rome and Chile are from one another; and by his prudence and goodneſs, excuſe any thing that may ſeem leſs finiſhed in this work; particularly ſince there is hopes of a general hiſtory of Chile, which cannot be long before it is finiſhed.

In the mean time, the firſt and ſecond books of this relation will ſhew the natural ſtate of the kingdom of Chile, both as to its climate and product; the third will deſcribe the qualities of its firſt inhabitants; the fourth and fifth will deſcribe the firſt entrance of the Spaniards into it, and the conqueſt of it by them; the ſixth will contain the various events of the war, cauſed by the noble reſiſtance made by the Araucanos; the ſeventh will ſhew the firſt means of peace attempted by father Lewis de Valdivia, of the company of Jeſus, in order to facilitate the preaching of the holy Goſpel, and the glorious death of his holy companions; the laſt book, which is alſo the largeſt of all, will

will contain the firſt means of planting the Chriſtian faith, and its propagation among the Indians, which was particularly compaſſed, and is ſtill carried on, by the miſſions and miniſtry of our company; all which endeavours of theirs I explain and diſtinguiſh under ſix heads, ſhewing the neceſſity of the ſpiritual help that thoſe new Chriſtians lie under, both as to preaching, and informing them of matters of the Chriſtian faith.

I muſt give here five advertiſements: the firſt, that in what I have ſeen myſelf, I have not departed from the truth in any thing I have writ: as to what I relate by hearſay, or by authority from other writers, I report it with the ſame candour as I heard and read it, without adding or diminiſhing any thing of the truth; and though all thoſe I cite in this work are worthy to be believed, yet the leaſt to be ſuſpected of partiality, are ſuch foreign writers who extol and commend this kingdom of Chile with ſuch repeated encomiums. My ſecond advertiſement is, that conſidering the kingdom of Chile was the laſt part of South America that was diſcovered, and the neareſt to the Antartick Pole, I could not treat of its diſcovery with good grounds, without touching a little upon the neighbouring kingdoms of Peru and Mexico, which were as a paſſage to it: and if I have enlarged now and then on the praiſes and deſcription of thoſe parts, it was becauſe I thought it might not be diſagreeable to the reader; in which, if I am miſtaken, he has only to ſkip ſome chapters of the fourth book, and go directly to thoſe which treat of the firſt entrance of Don Diego de Almagro into Chile. Thirdly, I muſt take notice, that though I do ſometimes, in ſpeaking of the land of Chile, report ſome particularities which ſeem trifles, and not ſo proper for hiſtory, I do not relate them as ſingular and proper to that country alone, but rather to ſhew the uniformity both of nature and cuſtoms, as to life and religion, in all thoſe parts; and ſome things are mentioned to encourage thoſe new countries to drive on the advancement of religion, politeneſs, learning, and good morals.

Fourthly, I muſt take notice, that ſince I do not here make a general hiſtory of Chile, I have not had occaſion to mention all the illuſtrious men, and noble commanders and ſoldiers who have flouriſhed in thoſe parts from the beginning of the conqueſt: I only, therefore, take notice of ſuch as I find named in the authors whom I cite; and they too not making it their buſineſs to write a diſtinct hiſtory of Chile, but only to relate ſome particular event, and ſo mention only ſome part of the government of ſome governors, or their wars, cannot be exact in the account of all thoſe who have in different times and occaſions acted in thoſe wars; and by this ſalvo I cover the honour of all our gallant commanders and ſoldiers of Chile, whoſe actions I omit, though they are worthy to be graven in marble or bronze, only for this reaſon. And though I own, that I am not ignorant of many who have flouriſhed in my time, and before it, yet I have not ſo diſtinct an information as would be neceſſary to give them their due commendations, and ſet their actions in that light which their valour deſerves; therefore the general hiſtory of Chile will perform that part. Perhaps, even before that, this work of mine may excite ſomebody to employ their talent in making a particular book of their eulogiums and praiſes, which cannot fail of being well received in the world, ſince ſo many noble and illuſtrious families of Europe will be concerned in it.

Laſtly, I advertiſe, that though the principal motive of my writing this relation, was to publiſh the ſpiritual miniſtry of our company in the converſion of ſouls in this kingdom of Chile, yet I could not but treat firſt of the land and inhabitants, as being the object and ſubject of their endeavours; and I have been forced to be more

diffuſe in it, than I would have been about a place already known to the world by any hiſtory or relations made of it. For this reaſon, I have employed ſix books in the deſcription of the land, and the valorous fierce diſpoſition of its inhabitants, that the force and efficacy of the divine grace might ſhine out the more in the beginnings of the converſions of that untractable nation, mentioned in my two laſt books, which are almoſt as comprehenſive as my ſix firſt, which were divided into ſo many, only to anſwer the diverſity of matter which they contain.

Thus I have informed my reader of this work, in which he will find variety of entertainment. Some things will anſwer the curioſity of thoſe who delight in knowing natural cauſes; others will be moved and incited to valiant actions by the examples of thoſe performed here. Thoſe likewiſe, who love hiſtorical relations, will be pleaſed, ſince here is an epitome of the diſcovery of the beſt part of the Indies, according to the order of times, and perſons concerned in the conqueſts and diſcoveries of ſo many kingdoms; and, laſtly, the pious diſpoſition of devout minds will be elevated to praiſe God for the ſignal favours, which the queen of heaven has beſtowed on the kingdom of Chile in particular; and adore the Lord of all things, for having in little more than one century made his name known, and his worſhip introduced among ſo many heathen nations, even to bring the untamed and powerful Araucanos upon their knees to him, after ſo many years ſtubborn reſiſting the entrance of the Goſpel. I cannot deſire my reader to expreſs any acknowledgments for this work of mine, becauſe I do not judge it deſerves ſo great a reward; but I hope he may, with indulgence, excuſe its faults, and make me ſome allowance for the little helps I have had in writing. I have endeavoured to pleaſe all; but, particularly, to ſhew how the kingdom of Chriſt may be advanced in that new world, if the apoſtolical zeal of the evangelical workmen will employ itſelf in this great harveſt of ſo extended a gentiliſm and new Chriſtianity.

TO THE READER.

THE firſt ſix books being the only ones that contain the hiſtorical and natural accounts, they alone are tranſlated; and ſome chapters even out of them omitted, for their tedious ſuperſtitious narratives.

BOOK I.

OF THE NATURE AND PROPERTIES OF THE KINGDOM OF CHILE.

CHAP. I. — *Of the Situation, Climate, and Diviſion of the Kingdom of Chile.*

THE kingdom of Chile, which is the uttermoſt bounds of South America, and has the kingdom of Peru to the north, begins at the 25th degree of ſouth latitude, towards the antarctick pole, and is extended in length five hundred leagues, as far as the ſtraights of Magellan, and its oppoſite land, called La Tierra del Fuego, which reaches to the 59th degree. The breadth of Chile is various; for it may be ſaid to extend itſelf one hundred and fifty leagues eaſt and weſt, becauſe though that which is properly called Chile, is not in many places above twenty or thirty leagues broad, which is

is generally its extent from the ſea to the famous Cordillera Nevada, or chain of mountains covered with ſnow (of which we ſhall ſpeak in its proper place,) yet in the diviſion of the bounds of the ſeveral governments of America, the king added to Chile thoſe vaſt plains of Cuyo, which run in length as far as Chile does, and are above twice as broad.

The oppoſite part of the world to this kingdom, is the meridian that paſſes between the iſland Taprobana of the ancients, which is Zeilon, and Cape Comorin, beginning at twenty-ſix degrees north of the equinoctial line. The inhabitants are properly antipodes to thoſe of Chile; and thoſe who inhabit the countries that reach from thirty-ſeven degrees to forty-four of the moſt weſterly parts of New Guinea, would be alſo diametrically antipodes to the inhabitants of Caſtille; but it is yet uncertain, whether that part of the world is land or water; but this is certain, that it falls out in the diviſion of Caſtille, and is oppoſite to it, and is weſt from Chile one thouſand ſeven hundred leagues.

This kingdom is comprehended in the third, fourth, and fifth climate: in that part of it which is in the third climate, the longeſt day is thirteen hours; and in the fifth climate, the day at longeſt is about fourteen hours, and ſomething more, quite contrary to Europe, as being oppoſite to it, but not diametrically; for the longeſt day in Chile is St. Lucia's, and the ſhorteſt St. Barnaby's; the ſun is always there towards the north, and the ſhadows to the ſouth.

This is the ſituation of the kingdom of Chile, which borders upon the north with the province of Aracama, and the rich mines of ſilver of Potoſi, where the kingdom of Peru begins; and on the ſouth it has the great ſea to the pole, and the iſlands diſcovered in it. Abraham Ortelius was of opinion, that there was on this ſouth ſide of the kingdom of Chile, a land which was contiguous with New Guinea; and this opinion laſted till we were undeceived by thoſe who having paſſed by the ſtraight of St. Vincent, otherwiſe called the ſtraight of Le Maire, went round that ſouth land called the Tierra del Fuego, and returned to the north ſea by the ſtraights of Magellan; proving evidently the ſaid land to be an iſland, entirely ſeparated from any other land; as I ſhall ſhew further in its proper place.

Chile has on the eaſt Tucuman and Buenos Ayres, and to the north-eaſt Paraguay and Braſil; to the weſt it has the South-Sea, which, according to the opinion of Antonio de Herrera, is all that is comprehended between Chile and China, and begins at the Golden Cherſoneſus, or the iſland of Sumatra; and that ſea is in breadth, eaſt and weſt, two thouſand ſeven hundred leagues.

According to what has been ſaid, we may divide this kingdom into three parts: the firſt and principal is that which is comprehended between the Cordillera Nevada and the South-Sea, which is properly called Chile. The ſecond contains the iſlands which are ſowed up and down upon its coaſt as far as the ſtraights of Magellan. The third contains the province of Cuyo, which is on the other ſide of the ſnowy mountains, called the Cordillera Nevada, and run in length all along as far as the ſtraights, and in breadth extends to the confines of Tucuman.

To begin then with that part which is moſt properly called Chile: I confeſs I had rather the deſcription of it had fallen to the lot of ſome ſtranger who had ſeen it; for then the danger of paſſing for too partial for one's own country, (to which are expoſed all thoſe who write of it) would have been more eaſily avoided, and ſuch an one might with leſs apprehenſion enlarge upon the excellent properties which God has been pleaſed to endow it with. The common opinion of all thoſe who have come from Europe to it, is, that its ſoil and its climate exceed all others they have ſeen; though, perhaps, in

that they only make a return for the kind welcome they all meet with in thoſe parts. As for my part, all I can ſay, is, that though it be like Europe in every thing, except in the oppoſition of the ſeaſons, which are tranſpoſed, it being ſpring and ſummer in the one, when it is autumn and winter in the other, yet it has ſome properties which do really ſingularize it, and deſerve the praiſes given it by travellers; for, firſt, neither the heat nor the cold are ſo exceſſive as in Europe, particularly as far as the 45th degree of latitude, for from thence to the pole the rigorous and exceſſive cold begins.

The accidental ſituation of the land of Chile, muſt be the cauſe of this temperature of the air; for being covered on the eaſt by the high mountains of the Cordillera, which are all ſo prodigiouſly elevated, it receives the freſh and cooling breezes from the ſea; and the tides which penetrate as far as the foot of the mountains, joining with the coolneſs of the ſnow, with which they are covered, refreſh the air ſo, that about four o'clock in the afternoon the heat is no ways troubleſome. Nay, if one is in the ſhade, one may ſay, that in no hour of the day the ſun is inſupportable, eſpecially from thirty-ſix degrees, or thereabouts, neither day nor night the heat can be complained of; which is the cauſe, that at the town of the Conception, which is in that ſituation, the covering for beds is the ſame winter and ſummer, neither of thoſe ſeaſons being any ways troubleſome.

Another good quality of this country is, to be free from lightning; for though ſometimes thunder is heard, it is at a great diſtance up in the mountain. Neither does there fall any hail in the ſpring or ſummer; or are thoſe ſtorms of thunder and lightning ſeen here, which in other parts make the bells be rung out, and the clouds to be exorcized; neither are there ſo many cloudy days in winter as in other parts; but moſt commonly after the rain has laſted two or three days, the heavens clear up, and look as if the ſky had been waſhed, without the leaſt cloud, in a very ſhort time after the rain; for as ſoon as ever the north wind, which brings the cloudy weather, ceaſes, the ſouth ſucceeds, and in a few hours drives away the rain; or if it be in the night-time, the dew falls, and the ſun riſes brighter than ever.

This country is yet to be valued upon another propriety of it, which is, that it is free from poiſonous creatures, ſuch as vipers and ſnakes, ſcorpions or toads; ſo that one may venture to ſit under a tree, or lie down and roll on the ground, without fear of being bit by them. Neither are there tygers, panthers, or any other miſchievous animals, except ſome lions of a ſmall kind, which ſometimes do harm to the flocks of ſheep or goats, but never to men, whom they fly from; and this is not only in the cultivated land, where men are frequent, but in the woods and ſolitude, and in the thickeſt groves, of which there are ſome ſo cloſe with trees, that one can hardly break through them afoot. I heard a friar of ours, who was an excellent builder, ſay, that having gone for three months together in woods, where there was no ſign of any one's having paſſed before, to find out trees proper for the timber of the church of St. Jago, he had never met with the leaſt poiſonous creature that could either cauſe a nauſeous idea, or a dangerous effect.

There is another moſt wonderful ſingularity of this ſame country, which is, that not only it does not breed, but will not ſuffer any punaizes, or bugs, to live in it; which is the more to be admired, that on the other ſide the mountains they ſwarm. I never ſaw one in it alive, for ſometimes there are ſome in the goods and furniture of people who come from the province of Cuyo; but as ſoon as they feel the air of Chile they die. The experience that was made of this, by one that was either curious or malicious enough, was wonderful; for coming from Cuyo to Chile, he brought ſome of thoſe creatures with him, well put up in a box, and ſuch food provided for them as to keep

keep them alive; but no ſooner were they come to the valley of Aconcagua, which is the firſt valley coming down from the mountains, but they all died, not ſo much as one remaining alive.

I do not ſay any thing here of the mines of gold, nor of thoſe excellent waters which running from them, are cordial and healthy; nor of the abundance of proviſions for life, nor of the phyſical plants, nor of many other rare qualities in which this country exceeds others, as well to avoid confuſion, as becauſe thoſe things will be better ſhewed when we come to treat of each of them in particular in their proper place.

In all other things the land of Chile is ſo like Europe, both in climate and ſoil, that there is very ſmall or no difference; and it is very remarkable, that in ſuch variety of diſcoveries made in America, none is ſo conformable in every thing with the European conſtitution, as this tract of Chile; for in moſt of the places between the tropicks, as Braſil, Cartagena, Panama, Portobello, and thoſe coaſts in that ſituation, the heats are violent, and continual all the year; and in ſome other places, ſuch as Potoſi, and the mountains of Peru, the cold is as exceſſive; in ſome they have a winter without rain, and have their rain in ſummer, when their heat is higheſt; others there are, where they have neither wine, oil, nor wheat of their own product; and though in ſome they may have theſe productions, yet the other fruits of Europe do not take with them; but Chile has, juſt as Europe, its four ſeaſons, of ſpring, ſummer, autumn, and winter; it does not rain in ſummer, but in winter; and all the product of Europe agrees with their ſoil.

One thing is much to be admired, and that is, that the land of Cuyo, that of Tucuman, and Buenos Ayres, being all in the ſame latitude with Chile, are nevertheleſs ſo different in climate from it and from Europe; for though in thoſe parts it freezes exceedingly, ſo as to freeze water within doors, and that their cattle, if left abroad, die with cold, yet there does not fall a drop of rain all the winter, and the ſun ſhines out ſo bright and clear, that not a cloud is to be ſeen: but in the ſpring they have ſuch abundance of rain, that it would drown the whole country, if the ſhowers laſted as long as in Europe or in Chile; for when the rain laſts but an hour and a half, the ſtreets are full of ſtreams in the towns, and the carts are up to their axle-trees, though they are very high in thoſe parts, and all the country is as it were a ſea: there fall likewiſe at that time thunder-ſtones, and hail as big as a hen's egg, nay, as geeſe eggs, and ſometimes as big as oſtriches; as I myſelf have ſeen.

All theſe ſtorms and varieties of weather form themſelves in the high mountains, that are a kind of wall to the kingdom of Chile; and they never come ſo far down as to invade its territories, but ſtop at them like a barricado; for in Chile the weather is always ſteady and conſtant, without ſudden changes, all the ſpring, ſummer, and autumn; in winter, indeed, there are degrees of heat and cold, as there is a difference in the length and ſhortneſs of the days, according to the degrees of the latitude, and courſe of the ſun, which cauſes the ſame variation as in Europe, though in oppoſite months.

From hence it follows, as authors do obſerve, and experience teaches, that there muſt be, and is, a great reſemblance between the animals and other productions of Chile and thoſe of Europe. As a proof of this, I have ſeen ſeveral gentlemen that came to Chile from other parts of America, either as commanders, or for other employments, which are in the king's diſpoſal, incredibly overjoyed at this conformity with Europe; for they think themſelves, as it were, in their native country, the air and the proviſions of both ſo like in their qualities: the meats are more nouriſhing than in hot-

ter

ter climates; and when thoſe who have been either born or bred in thoſe hot countries come to Chile, they are forced to abſtain, and keep a watch upon their appetites, till their ſtomachs are uſed by little and little to the ſtrength of the food of that country, and can digeſt it.

CHAP. II.—*Of the four Seaſons of the Year, and particularly of the Winter and Spring: with a Deſcription of ſome Flowers and medicinal Plants.*

THE four ſeaſons of the year which are in Europe, the ſpring, the ſummer, the autumn, and the winter, are with the ſame duration of time enjoyed in Chile, though not exactly under the ſame names, at the ſame time; for the ſpring begins about the middle of the European Auguſt, and laſts to the middle of November; then begins the ſummer, which holds to the middle of February; which is followed by the autumn, which laſts to the middle of May; and then the winter enters, and makes all the trees bare of their leaves, and the earth covered with white froſts, (which nevertheleſs diſſolve about two hours after ſun-riſe, except in ſome cloudy days, that the iſicles laſt from one day to another;) the winter ends again about the middle of Auguſt. It is very ſeldom that the ſnow falls in the valleys or low grounds, though ſo great a quantity is upon the mountains, that it fills up ſometimes all the hollow places to the height of ſeveral pikes, and there remains, as it were, in wells and reſervatories, to provide, as it does in due time, ſo many ſprings and rivers with water, ſo fertilizing the valleys and plains, that they produce infinite crops of all ſorts in the autumn, and enrich the kingdom. But notwithſtanding that it ſeldom ſnows in the valleys and plains, yet it is ſo cold in them, that few parts in Europe are colder; which proceeds not only from the degree of elevation this land is in, but alſo from its neighbourhood to thoſe vaſt mountains called the Cordillera, which ſend out ſuch ſharp and piercing winds, that ſometimes they are inſupportable; therefore the ſea-coaſt is much more temperate and warm; but in return much more expoſed to vehement tempeſts of winds, than the inland parts, where theſe ſtorms are in ſome meaſure ſpent before they reach them, and ſo cannot whip them and torment them as they do the ſea-coaſts.

For ſome protection againſt theſe ſharp cold winds, God Almighty has placed ſeveral great cluſters of thorn-buſhes, which thrive ſo well, that it is the ordinary fewel of all the countries about the town of St. Jago, and the valleys near it. It is a plant not unlike an oak, though more durable; the heart of the wood is red, and incorruptible; of it they make coals for the furnace, and other ſhop uſes. In other parts the true oak ſerves for the ſame purpoſe; as the territory of the city of Conception, where there are very large woods of them, which are ſo thick, that though they have already ſerved for the uſes of the natives ſo many years, yet when they are entered, they can hardly be paſſed in the middle; and this within half a league of the city; for further up in the country there are foreſts, where no man every ſet his foot.

Though theſe oaks, as alſo the fruit-trees, loſe their leaves in winter, yet there are wild trees which do not, though all covered with ice and ſnow; and the cold is ſo far from injuring them, that when the ſun melts the froſt, they look brighter and more beautiful. As ſoon as the firſt rains come, the fields begin to be clothed in green, and the earth is covered in twenty or thirty days with graſs; amongſt which nature produces a ſort of yellow flower in ſuch abundance, that the plains and valleys look like carpets of green and yellow.

 Theſe

Theſe firſt rains ſeem to prepare the earth for its ornamental dreſs of flowers with the ſpring, which begins about the middle of Auguſt; and they laſt till December, that the heats come in, and that with ſuch variety and abundance of ſo many kinds, that the fields look as if they had been painted, producing a moſt delightful object. I remember once, as I was travelling, I ſaw ſo great a diverſity of theſe flowers, ſome ſcarlet, others blue, yellow, red, ſtraw-colour, purple, &c. that I was moved to tell them, and I told in a ſhort time two and forty ſorts, ſo admirable was their variety; and yet I do not reckon among theſe the cultivated ones in gardens, nor thoſe that were brought from Europe, ſuch as carnations, roſes, ſtock gilly-flowers, orange, lillies, poppies, lupins, &c. I only ſpeak of thoſe that grow wild, which are ſo odoriferous and ſweet-ſcented, that it is out of them they diſtil a water called *aqua d'angeles*, or, angel's water. The ſmell of theſe flowers is perceived ſweeteſt at the riſing and ſetting of the ſun; which, mingled with the ſcent emitted by the herbs, which are very aromatic, produce a moſt admirable perfume, and for that reaſon they put the ſprouts and tops of them amongſt the flowers which make the angel water.

It is ſcarcely poſſible to expreſs the force with which the earth puts forth theſe plants, which is ſo great that in many places it is hard to diſtinguiſh the cultivated from the uncultivated lands. One would think at firſt that all had been plowed and ſowed alike; and with the continuance of the rains, the graſs runs up ſo ſtrong, and grows ſo intricate, that a horſe can hardly break through it, it coming in moſt places to the ſaddle girts.

Muſtard-ſeed, turnips, mint, fennel, trefoil, and other plants, which I ſee are ſowed and cultivated in Europe, for the juſt eſteem that is made of them, do all grow wild in Chile, without ſerving to the uſe of life at all, otherwiſe than by the cattle's feeding on them, which they may do for ſeveral leagues together. The muſtard-plant thrives ſo mightily, that it is as big as one's arm, and ſo high and thick, that it looks like a tree. I have travelled many leagues through muſtard-groves, which were taller than horſe and man; and the birds build their neſts in them, as the goſpel mentions in theſe words, *ita ut volucres cœli veniant et habitent in ramis ejus;* ſo that the birds of the air come and lodge in the branches thereof.

There are many plants of great virtue in phyſic, and known only to the Indians, called Machis, who are a race of men who are their doctors. Theſe plants they conceal carefully, and particularly from the Spaniards, to whom if they communicate the knowledge of one or two, it is a great mark of their friendſhip; but the knowledge of the reſt they reſerve, and it paſſes from father to ſon. Theſe Machis, or doctors, are not only eſteemed by the Indians, but by the Spaniards themſelves, who have recourſe to them in the greateſt extremities, when the diſeaſe preſſes moſt. They find wonderful effects from the application of theſe ſimples, which they uſe in a leſſer doſe with the Spaniards than with the Indians, who are of a more robuſt nature, and ſtronger conſtitution.

I ſaw one of our order much troubled with the falling ſickneſs and ſwooning fits, ſo as he was forced to have always ſome body in his company, or elſe he might have fallen down ſtairs, or otherwiſe killed himſelf: he had uſed all the remedies that the learning of phyſicians and the charity of religious men could ſuggeſt, but without any effect at all: nay, he was worſe and worſe every day. Our fathers learned at laſt, that about twelve leagues off from that place there lived an Indian Machi: they ſent for him; and being come, and having heard the relation of his diſtemper, he gave him as much of a certain herb in wine as the bigneſs of a nail; and it had ſo great an effect, that it took

took away the diſtemper, as if he had taken it away with his hand, the perſon being never troubled with it more, all the time I knew him.

I have ſeen many other cures performed by theſe Machis, particularly in caſes of poiſon; for in that ſort of diſtemper they are very eminent. I ſhall mention but one inſtance, of a gentleman who had been pining away for ſeveral years, and often at death's door: once, being in extreme danger, he heard of a famous Machi who lived a great way off, but was a ſhe-doctor, (for there are women amongſt them eminent in the art:) he procured, by preſents, to have her ſent for; and having promiſed her a conſiderable reward, beſides what he gave her in hand, which he was well able to perform, being very rich and powerful, ſhe began to apply her remedies, which were herbs; and one day, when ſhe ſaw his body prepared to part with the poiſon, ſhe cauſed a great ſilver voider to be ſet in the middle of the room, and there, in the preſence of many people, the gentleman having firſt been very ſick in his ſtomach, he caſt up the poiſon which had been given him many years before, wrapp'd up in hair, which came up with it; and he was perfectly well after this, as he himſelf related to me.

Though, as I have ſaid, the Indians are ſo cloſe in keeping ſecret the herbs they uſe, yet many of them, perſuaded by reaſon, and induced by friendſhip, do communicate ſomething: and time and experience has diſcovered ſo many more, that if I ſhould mention them all, I ſhould be forced to make a book on purpoſe of them; therefore I ſhall only mention three that I have more preſent in my memory, the effects of which are prodigious.

The firſt ſhall be a famous plant called Quinchamali, which riſes not a foot above the ground, and its branches ſpread like a noſegay, and end in little flowers at the points, which, both in colour and in ſhape, are not unlike the ſaffron called Romi. They pull up the herb, and boil it entire, with its roots, leaves, and flowers, in fair water, which is given to the patient to drink hot: amongſt other effects it produces, one is to diſſolve all coagulated blood in the body, and that very quickly; ſo that an Indian feeling himſelf wounded, takes it immediately, to hinder the blood that could not come out at the wound from congealing inwardly, and ſo prevents all impoſthumation, and the corruption of the reſt.

There happened in our college of St. Jago an accident, which gave proof of this admirable herb; which was, that an Indian belonging to us being gone to the great place to ſee the bull-feaſt, a bull, to his great misfortune, catched him up, and toſſed him in the air, and left him almoſt dead on the ſpot; he was brought to our houſe, and the phyſician, being called, ſaid he was a dead man, and nothing could ſave him: but, however, he told the father that has care of the ſick, that it would coſt but little to give him the Quinchamali, wrap him up warm, and leave him alone ſome hours. It was done accordingly; and after ſome time, the father reſorting to the place where they had laid him, to ſee if he was dead, he was found not only alive, but out of danger, and the ſheet all full of blood, which the herb had cauſed him to void through the pores of his body, ſo as he remained perfectly well in a little time.

The ſecond herb is that which we Spaniards call Albaaquilla, and the Indians Culen, becauſe its leaves are like the leaves of ſweet baſil: it grows in buſhes ſo high, that they ſeem to be trees; the leaves are very fragrant, and ſweet like honey: being bruiſed, it is applied to the wound outwardly, and ſome drops of its juice are to be poured alſo into the wound; after which, moſt admirable effects of its efficacy are ſeen.

I was told by Captain Sebaſtian Garcia Carrero, the founder of our novitiat-houſe of Bucalemo, that as he was travelling with a dog in his company, which he loved extremely,

tremely, ſome wild monkeys that live in the mountains fell upon him, and ſo worried him among them by biting him, ſome on one ſide and ſome on the other, that they left him full of wounds, and particularly with one large one in his throat: his maſter came up at laſt, and found him without ſign of life; he was much troubled for the loſs of his dog, and lighted to ſee what he could do for him. This Albaaquilla, is an herb that grows every where in the fields; and the gentleman, at a venture, gathering three or four handfuls of it, bruiſed them between two ſtones, and poured the juice into the dog's wounds, and into the great one of his throat he thruſt a handful of it, and ſo left him without hopes of life: but it fell out wonderfully, that after a few leagues travelling on, turning back to look at ſomething, he ſaw his dog following at a diſtance, who was ſo well cured that he lived many years after.

The third herb, that I remember, is like a knot of fine hair, and which is not commonly met with: this is an admirable herb in fevers and pleuriſies; it is boiled in water, and drank; it purifies and cleanſes the blood, expelling that which is bad, and ſo the ſick body remains perfectly cured; as I myſelf have had the experience of it.

There are ſeveral other plants, ſome of which cure the pains of the liver; others diſſolve the ſtone in the bladder, and break it to pieces; ſome are excellent for the ſciatica and other infirmities; all which, if I were to relate in particular, I ſhould make a new *Dioſcorides*, or herbal, which is not my intention. We will therefore leave the flowers and herbs of the ſpring, the harmony of the ſinging of birds, which ſo rejoices the mornings, and the ſerene and quiet days of this ſeaſon, to draw near the ſummer; which will afford us matter of diſcourſe.

CHAP. III.—*Of the Summer and Autumn, and their Product.*

THE ſummer begins in the middle of November, and laſts to the middle of February, ſo that the greateſt heats are at Chriſtmas; and we are forced to have recourſe to our faith, to conſider the child God trembling with cold in the manger; for when we riſe to ſing matins, particularly in Cuyo and Tucuman, where the heats are exceſſive, we are ready to melt with heat. In Chile the heats are not ſo exceſſive, becauſe the country is more temperate; but ſtill the weather is not ſo cold as it was in Bethlem. About this time the fruits begin to ripen, which are in great variety; and there are but few of thoſe of Europe that are wanting; for as ſoon as any of them are brought, either in ſtone, ſeed, or plant, they take, and it is wonderful to ſee how they thrive. I remember about thirty years ago there were no cherries; there coming by chance a little tree from Spain, from which all the curious began to multiply them in their gardens, (it being both a rarity, and a valuable fruit;) in a ſmall time they were ſo increaſed, that they were baniſhed from the gardens to the fields, becauſe they produced ſo many young plants from their roots, that they took up all the ground about them.

Of the fruits of Peru, Mexico, and all the continent of America, not one will grow in Chile; and the reaſon is, the oppoſition of the climate of Chile; nay, though they bring either plant, ſeed, or ſetting, they never thrive; for thoſe countries are within the tropics, and Chile is out of them; for which reaſon alſo the fruits of Europe take ſo well in Chile, ſuch as pears, apricots, figs, peaches, quinces, &c. which bear infinitely; and if there is not care taken to leſſen their number when little, it is impoſſible for the boughs to bear the weight of the fruit, ſo that they are fain to prop them up with forks when they grow near ripe.

The fruit that exceeds all the reſt for bearing is the apple, of all kinds, of which there are prodigious orchards; and of theſe, though they leſſen the number, yet the others increaſe ſo much in weight, that the trees are brought down to the ground; ſo that there are many windfalls, filling all the ground about them, and the very rivers on which they ſtand, and ſtopping the courſe of the water.

All the crops of oats, wheat, maize, and all other garden product, begin to be cut in December, and ſo on to March; and they ſeldom produce leſs than twenty or thirty for one, nay, ſome a hundred for one, and the maize four hundred for one; and it is very ſeldom that there is any ſcarcity of grain, but it is very cheap moſt commonly.

As for the fruit of the gardens, it is never or rarely ſold, but any body may, without hinderance, ſtep into a garden or orchard, and eat what they will; only the ſtrawberries, which they call Frutilla, are ſold; for though I have ſeen them grow wild for miles together, yet, being cultivated, they are ſold very dear: they are very different from thoſe I have ſeen here in Rome, as well in the taſte as in the ſmell; and as for their ſize, they grow to be as big as peers, moſt commonly red; but in the territory of the Conception, there are of them white and yellow.

About this time, alſo, the herbs that fatten the cattle grow ripe; and then they begin to kill them with great profit, it being the chiefeſt riches of the country, by reaſon of the tallow and hides which are ſent for Peru. They kill thouſands of cows, ſheep, goats; and the fleſh, being ſo cheap that it is not worth ſaving, they throw it away into the ſea or rivers, that it may not infect the air; only they ſalt the tongues and loins of the cows, which they ſend for Peru as preſents for their friends; and they who are able, and underſtand it, ſend likewiſe ſome dried ſalt-fleſh for the king's forces, or keep it to feed their own ſlaves or ſervants.

Autumn begins about the middle of February; ſo Lent proves the moſt delicious time of the year; for beſides lobſters, oyſters, crabs, and other ſorts of ſhell-fiſh and ſea-fiſh of all kinds, they fiſh in the ponds and rivers for trouts, Vagres, Pejereges, and other very choice river-fiſh of ſeveral kinds; and at the ſame time there is a great plenty of legumes, and garden product, as gourds, all ſorts of fruit, particularly quinces, which are as big as one's head, and another kind called Lucumas, of which they make ſo many diſhes, that the mortification of faſting is hardly perceived.

In the end of autumn, they begin to gather the olives and the grapes; and this laſts the months of May and June. The wines are moſt noble and generous, and famed by the authors who write of this country: there is ſuch plenty of them, that the plenty is a grievance, there being no vent for ſuch quantities: it kills the Indians, becauſe when they drink, it is without meaſure, till they fall down; and it being very ſtrong, it burns up their inward parts: the beſt kind is the Muſcatel. I have ſeen ſome that look like water; but their operation is very different in the ſtomach, which they warm like brandy.

There are white wines alſo very much valued; as thoſe of the grape called Uba Torrontes, and Albilla: the red and deep-coloured are made of the ordinary red grape, and the grape called Mollar. The bunches of grapes are ſo large, that they cauſe admiration; particularly I remember one, which, becauſe of its monſtrous bigneſs, was by its owner (a gentleman) offered to our lady's ſhrine: it was ſo big as to fill a baſket, and to feed the whole convent of friars for that meal, and they are pretty numerous. The branches of the vines are by conſequence very big, and the trunk or body of them is in ſome places as thick as a man's body; and no man can incompaſs with extended arms the heads of them, when they are in full bloom.

CHAP. IV. — *Of the natural Riches of the Kingdom of Chile; which are its Mines of Gold, and other Metals; as also of the induſtrious Management of its other Product.*

THE riches of Chile are of two ſorts: firſt, thoſe which nature has beſtowed on it, without the help of human induſtry; and, ſecondly, thoſe which have been produced and invented by the inhabitants, to improve and enjoy its fertility. To the firſt kind belongs its mines of gold, ſilver, copper, tin, quick-ſilver, and lead, with which heaven has enriched it. Of the copper of Chile are made all the great guns for Peru and the neighbouring kingdoms, in the garriſons of which there are always ſtores, particularly on the coaſts: all the bells of the churches, and utenſils for families, are of this metal; ſo that ſince the working of theſe mines, no copper has come from Spain; for the Indies are ſufficiently ſupplied by them with all they can want.

There is little lead worked, becauſe there is little uſe of it; quickſilver leſs, becauſe the mines are but newly diſcovered; and as they were going to work them, the obſtacle to thoſe of Guancabilica in Peru was removed, and ſo there was no need of working thoſe of Chile. Thoſe of ſilver likewiſe lie unwrought, becauſe the golden mines are of leſs charge, and ſo every body has turned their induſtry towards them: they are ſo many, and ſo rich, that from the confines of Peru to the extremeſt parts of this kingdom, as far as the ſtraights of Magellan, there is no part of the country but they diſcover them; which made father Gregory of Leon, in his map of Chile, ſay, that this country ought rather to have been called a plate of gold, than to go about to reckon up its golden mines, which are innumerable.

All the authors who have writ of this country, do mightily enlarge upon its riches; and the ſame is done by all thoſe who have navigated the ſtraights of Magellan. Antonio de Herrera, in his general hiſtory of the Indies, ſays, that in all the Weſt Indies, no gold is ſo fine as that of Voldivia in Chile, except the famous mine of Carabaya; and that when thoſe mines were firſt worked, (which was before thoſe Indians who are now at peace with us were at war,) an Indian among them did uſe to get from them every day 20 or 30 peſos of gold, which comes to near 500 reals of plate, and was a wonderful gain.

And the already-cited John and Theodore de Brye ſay, that when the Nodales paſſed the ſtraights of St. Vincent, otherwiſe called ſtraights of Le Maire, there came ſome Indians from the country called La Tierra del Fuego, who exchanged with the Spaniards a piece of gold of a foot and a half long, and as broad, for ſciſſars, knives, needles, and other things of little value; for they do not value it as we do. Other authors ſay, that moſt of the gold that was laid up in the Ineas treaſure, was brought to him from Chile, though having never ſubjected the Araucanos, he could not have that quantity which this rich country would elſe have afforded.

But what need I weary myſelf in citations of people abroad, when thoſe who live in the country of Chile, and ſee it every day, are the beſt teſtimony of the great riches that the Spaniards have drawn from theſe mines; which was ſo great, that I have heard the old men ſay, that in their feaſts and entertainments, they uſed to put gold-duſt in their ſalt-ſellers inſtead of ſalt; and that when they ſwept the houſe, the ſervants would often find grains of gold in the ſweepings, which they would waſh out, for the Indians being the perſons that brought it to their lords, they would often let ſome fall.

I have ſaid before, that it was much more eaſy to get gold than ſilver out of the mines, becauſe this laſt coſts much pains; firſt, to dig it from the hard rock, then to

beat it in the mills to powder, which mills are chargeable, as is alſo the quickſilver, neceſſary to be uſed to make the ſilver unite, and all the reſt of the operations requiſite to refine it; but the advantage of getting gold has no other trouble in it, than to carry the earth in which it is found to the water, and there waſh it in mills on purpoſe, with a ſtream which carries off the earth; and the gold, as being heavieſt, goes to the bottom.

It is true, that ſometimes they follow the gold vein through rocks and hard places, where it grows thinner and thinner, until at laſt the profit that ariſes is very ſmall; yet they perſiſt to follow it, in hopes it will grow larger, and end at laſt in that which they call Bolſa, which is, when coming to a ſofter and eaſier part of the rock, the vein enlarges ſo, that one of theſe hits is enough to enrich a family for all their lives. There is now leſs gold found than formerly, by reaſon of the war the Spaniards have had with the nation of Araucanos; but ſtill ſome is found, particularly in Coquimbo, where, in the winter, when it rains much, is the great harveſt of gold; for, by the rain, the mountains are waſhed away, and the gold is eaſier to come at. There is likewiſe ſome gold in the territories of the Conception; in which I was told, by a captain who entered into our ſociety, that there was, not above half a league from the town, a pond, or ſtanding-water, which is not deeper than half the height of a man; and that when the Indians have nothing to ſpend, they ſend their wives to this pond; and they going in, feel out with their toes the grains of gold; and as ſoon as they have found them, they ſtoop and take them up. They do this until they have got to the value of two or three peſos of gold; and then they ſeek no longer, but go home, and do not return for any more as long as that laſts; for they are not a covetous people, but are content to enjoy, without laying up.

I brought with me to Italy one of theſe grains thus found, of a pretty reaſonable bigneſs; and ſending it to Seville to be touched, without either putting it in the fire, or uſing other proofs, it was allowed to be of twenty-three carats, which is a very remarkable thing. Now the peace is made, and the warlike Indians quiet, the Spaniards may return to ſearch for the gold of Valdivia, and other mines thereabouts, which will extremely increaſe the riches of the country.

As for the product made by the induſtry of the inhabitants, it conſiſts particularly in the breed of their cattle of all kinds, as I have obſerved above; ſending the tallow, hides, and dried fleſh, for Lima; where, having firſt retained the neceſſary proportion for themſelves, which is about twenty thouſand quintals of tallow every year for that city, and hides accordingly, they diſtribute the reſt all over Peru: the hides, particularly, are carried up to Potoſi, and all that inland tract of mines, where moſt of their clothing comes from Chile; they are alſo carried to Panama, Carthagena, and the reſt of that continent; ſome of this trade extends itſelf likewiſe to Tucuman and Buenos Ayres, and from thence to Braſil.

The ſecond product is the cordage and tackling, with which all the ſhips of the South Seas are furniſhed from Chile; as alſo the match for fire-arms, with which all the king's garriſons along the coaſt are provided from thoſe parts; for the hemp, which makes the firſt material of all theſe proviſions, grows no where in the Weſt Indies but in Chile: there is alſo packthread exported, and other ſmaller cordage.

The third product is mules, which are ſent to Potoſi, through the deſart of Arcama.

The fourth product is the cocoa-nuts, which are the fruit of the palm-trees; and do not, indeed, proceed from induſtry, but grow wild in the mountains, without any cultivation, ſo thick, that I have ſeen ſeveral leagues of this tree. Almonds likewiſe, and the product of gardens, which do not grow in Peru, are carried thither with great

profit, ſo as to be able to ſet up a young beginner. When I came to Lima, I obſerved that the anniſeed, which had been bought at Chile for two pieces of eight, was ſold there for twenty; and the cummin ſeed, bought at twenty, was ſold for fourſcore; which makes merchants very willing to trade to thoſe parts, as hoping to grow rich in a ſmall time; and this increaſes the riches of Chile, by drawing every day thither men with good ſtocks. The gains made this way are ſo conſiderable, that a man who has about forty thouſand crowns to employ in land, flocks, and ſlaves, to take care of them, may every year have a revenue of ten or twelve thouſand crowns, which is a gain of twenty-five per cent. very lawful, and without any trouble to one's conſcience, or ſubjection to the dangers of the ſeas; for thoſe who will run the hazards of that element gain much more; for the merchants, by many commodities, get a hundred, and two hundred, nay, three hundred per cent. in a navigation of about three weeks, which is the time uſually employed from Chile to Lima, without any fear of pirates, all thoſe ſeas being entirely the king of Spain's, and ſo free from thoſe robbers. Beſides, it is very ſeldom that any ſtorms are felt in that voyage, or, at leaſt, not any that endanger the loſs of the ſhips. The greateſt danger proceeds from the covetouſneſs of the owners and merchants, who truſting to the peaceableneſs of thoſe ſeas, and that they ſail all the way from Chile to Lima before the wind, they load up to the mid-maſt. It is no exaggeration; becauſe I have ſeen them go out of the port with proviſions for the voyage, and other neceſſaries, as high as the ropes that hold the maſts; and though the king's officers are preſent to hinder the ſhips from being overloaded, yet generally they are ſo deep in the water, that they are but juſt above it; and with all theſe, there are many goods left behind in the magazines of the port; for the land is ſo productive of every thing, that the only misfortune of it, is to want a vent for its product, which is enough to ſupply another Lima, or another Potoſi, if there were one.

It is upon this foundation that it is affirmed generally, that no country in all America has a more ſolid eſtabliſhment than Chile; for, in proportion to the increaſe of inhabitants in Peru, Chile muſt increaſe too in riches, ſince it is able to ſupply any great conſumption, and yet have enough of its own in all the kinds of corn, wine, fleſh, oil, ſalt, fruits, pulſe, wool, flax, hides, tallow, chamois, leather, ropes, wood, and timber, medicinal remedies, pitch, fiſh of all kinds, metals of all ſorts, and amber. There wants ſilk; and it is to be wiſhed that it may never get thither, but for ornament to the altars; for it is already the beggaring of the country, by reaſon of the great expence in rich clothes; particularly by the women, who are not outdone in this, even by the braveſt ladies of Madrid, or other parts; but yet the land is ſo proper for ſilk-worms, that if any one carries the ſeed of them there, I am perſuaded it will take with great abundance, the mulberry-trees being there already as full grown, and in as great beauty as in Spain.

The wax likewiſe comes from Europe, though there are bees which make both honey and wax. Pepper, and other Eaſt India ſpices, come from abroad, though there is a kind of ſpice which ſupplies the want of them very well; and the authors above cited ſay, that in the ſtraights of Magellan, there is good cinnamon; and that on thoſe coaſts there grow trees of a moſt fragrant ſmell in their bark, and which have a taſte like pepper, but of a more quick ſavour, as it ſhall be made out when we treat of that ſtraight.

In the whole kingdom, the herbage and the fiſhing are in common; as alſo the hunting; and the woods for fuel and timber; and the ſame is practiſed as to the ſalt mines.

There is no impoſition on trade through all the kingdom, every one being free to tranſport what goods he pleaſes, either within or without the kingdom.

CHAP. V.—*Of the famous Cordillera of Chile.*

THE Cordillera, or high mountains of Chile, are a prodigy of nature, and without parallel in the world: it is a chain of high mountains, which run from north to ſouth from the province of Quito, and the new kingdom of Granada, to Chile, above a thouſand Caſtilian leagues, according to Antonio de Herrera, in his third tome, Decade 5., to which, adding the length of the kingdom of Chile to the ſtreights of Magellan, it will make in all little leſs than 1,500 leagues. The remoteſt part of Chile is not above twenty or thirty leagues from the ſea. Theſe mountains are forty leagues broad; with many precipices, and intermediate valleys, which are habitable till one comes to the tropicks, but not beyond them, becauſe of the perpetual ſnows with which they are always covered.

Antonio de Herrera, already cited, puts two chains of mountains; one much lower, covered with woods and handſome groves, becauſe the air is more temperate near it; the other much higher, which, by reaſon of the intenſe cold, has not ſo much as a buſh on it, the mountains being ſo bare, that there is neither plant nor graſs on them; but he ſays, that on both theſe ſorts of mountains there are ſeveral animals, which, becauſe of the ſingularity of their kinds, I ſhall here deſcribe ſome of them.

One of the moſt remarkable is a ſpecies of hogs, that have their navel in their back, upon the back-bone; they go in herds, and each herd has its leader, who is known from them all; becauſe when they march, none dares go before him, all the reſt follow in great order. No hunter dares fall on theſe herds till he has killed this captain, or leader; for as long as they ſee him, they will keep together, and ſhew ſo much courage in their own defence, that they appear invincible; but as ſoon as they ſee him killed, they are broke, and run for it, giving up the day, till they chuſe another captain.

Their way of eating is alſo admirable; they divide themſelves into two bodies; one half of them goes to certain trees which are in a country called Los Quixos, in the province of Quito, and are like the cinnamon-trees; theſe they ſhake to bring down the flowers, which the other half feeds on; and when they have eat enough, they go and relieve the other half of the flock, and make the flowers fall for them; and ſo return the ſervice to their companions that they have received from them.

There are many ſorts of monkeys, which differ mightily in their ſhapes, colour, and bigneſs, and other properties; ſome are merry; ſome melancholy and ſad; theſe whiſtle, the others chatter; ſome are nimble, others lazy; ſome cowards, others ſtout and courageous; but yet when one threatens them, they get away as faſt as they can. Their food is fruit and birds-eggs, and any game they can catch in the mountains: they are very much afraid of water, and if they happen to wet or dirty themſelves, they grow dejected and ſad. There are alſo great variety of parrots.

The wild goats are numerous; they are called Vicunnas, and have ſo fine hair, that it ſeems as ſoft as ſilk to the touch; this is uſed to make the fine hats ſo much valued in Europe. There are likewiſe a ſort of ſheep of that country, they call Quanacos, which are like camels, but a good deal leſs, of whoſe wool they make waiſtcoats, which are woven in Peru, and are more valued than if they were of ſilk, for their ſoftneſs, and the fineneſs of their colours.

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The ſame author ſays, moreover, that through this chain of mountains there went two highways, in which the Ingas ſhewed their great power; one of them goes by the mountain all paved for nine hundred leagues, from Poſto to Chile: it was five and twenty feet broad, and at every four leagues were noble buildings; and to this day there are the places called Tambos, which anſwer our inns, where every thing neceſſary is to be found by travellers; and that which was moſt admirable, at each half league there were couriers and poſts, who were deſigned for the conveniency of paſſengers, that they might ſend their letters and advices where they were requiſite. The other way, which was alſo of twenty-five feet broad, went by the plain at the foot of the mountains, with the ſame proportion and beauty of inns and palaces at every four leagues, which were incloſed with high walls; as alſo ſtreams and rivulets running through this way, brought thither by art, for the refreſhment and recreation of travellers.

This is what Antonio de Herrera, and other authors, who treat of the Indies, do tell us about this famous Cordillera. Now I ſhall relate what I myſelf have ſeen, and do know about it.

And firſt, I muſt ſuppoſe, that though theſe two highways run ſeparate and diſtinct through all Peru and Quito, yet they muſt grow nearer each other as they riſe higher in the mountain; for when they come to Chile, they are no longer two, but one. This is clearly found, by experience, in thoſe who croſs the Cordillera, to go from Chile to Cuyo, as I have done ſeveral times, that I have paſſed this mountain, and never could ſee this diviſion, but always continual and perpetual mountains, which ſerve for walls and fortifications on each ſide to one which riſes in the middle infinitely higher than the reſt, and is that which moſt properly is called the Cordillera. I am alſo perſuaded, that the two ways above-mentioned came but to the boundaries of Chile, and ended in thoſe of Peru. I have, indeed, in paſſing the Cordillera, met with great old walls of ſtone on the top of it, which they call the Ingas; which, they ſay, were encampments, (though not his, for he never came to Chile) but of his generals and armies ſent to conquer the country; and it is not impoſſible but the ſaid two ways might be continued on to theſe buildings; but it was not practicable, that it could be with that perfection, as in that part of the mountain contained within the tropicks; where, becauſe the hills are more tractable, ſuch ways might be made as they deſcribe; but not in the mountains of Chile, which are one upon another ſo thick, that it is with great difficulty that a ſingle mule can go in the paths of it: and the Corderilla grows rougher and rougher, the more it draws near the pole, ſo that it appears to be above the compaſs of human power to open a way through it, ſo curiouſly and finely contrived as it is repreſented. It was not neceſſary that the Inga ſhould uſe ſo much art and induſtry, to make admirable that which is already ſo much ſo, as this mountain is in its whole courſe through the kingdom of Chile, as it ſhall be ſhewed when we diſcourſe in particular of its ſeveral parts and properties. For firſt, ſuppoſing what we have ſaid, of its running fifteen hundred leagues in length, and forty in diameter, its wonderful height makes it aſtoniſhing: the aſcent is ſo prodigious, that we employ three or four days in arriving to the top of it, and as many more in the deſcent, that is, ſpeaking properly, and only of the mountain, for otherwiſe it may be affirmed, that one begins to mount even from the ſea-ſide, becauſe all the way, which is about forty leagues, is nothing but an extended ſhelving coaſt; for which reaſon the rivers run with ſuch force, that their ſtreams are like mill-ſtreams, eſpecially near their heads.

When we come to aſcend the higheſt point of the mountain, we feel an air ſo piercing and ſubtile, that it is with much difficulty we can breathe, which obliges us to fetch

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our breath quick and ſtrong, and to open our mouths wider than ordinary, applying to them likewiſe our handkerchiefs to condenſe our breath, and break the extreme coldneſs of the air, and ſo make it more proportionable to the temperament which the heart requires, not to be ſuffocated: this I have experienced every time that I have paſſed this mighty mountain.

Don Antonio de Herrera ſays, that thoſe who paſs it in Peru, ſuffer great reachings and vomitings; becauſe no one thing produces ſo great an alteration at once, as a ſudden change of air; and that of the mountain being ſo unproportioned to common reſpiration, produces in thoſe who paſs over it thoſe admirable and painful effects. He ſays moreover, that thoſe who have endeavoured to dive into the cauſes of them, do find, that as that mountain is one of the higheſt in the world, the air of it is ſo extremely ſubtile and fine, that it diſcompoſes the temperament of the animal, as has been ſaid. It is true, that in that part of the Cordillera in Peru, which they call Pariacaca, there may be a concurrence of other cauſes and diſpoſition of the climate, to which may be attributed ſome of theſe effects; for if they were to attributed only to the height of the mountain, we that paſs it in Chile ought to find ſo inconveniencies as much, or more, becauſe the mountain is higheſt without comp and yet I never endured thoſe reachings or vomitings, nor have ſeen any of th tions in others, but only the difficulty of breathing, which I have mentioned.

Others experience other effects, which I have often heard them ate; for the exhalations, and other meteors, (which from the earth ſee o high in the air, that ſometimes we take them for ſtars,) are there under the feet of the mules, frighting them, and buzzing about their ears. We go through the mountains, treadir , as it were, upon clouds; ſometimes we ſee the earth without any oppoſition to our ſight, and when we look up, we cannot ſee the heavens for clouds; but when we are aſcended to the higheſt of the mountain, we can no long r ſee the earth for the clouds below, but the heavens are clear and bright, and the ſun bright and ſhining out, without any impediment to hinder us from ſeeing its light and beauty.

The Iris, or rain-bow, which upon the earth we ſee croſſing the heavens, we ſee it from this height extended under our feet; whereas thoſe on the lower parts ſee it over their heads; nor is it a leſs wonder, that while we travel over thoſe hills which are dry and free from wet, we may ſee, as I have done o n, the clouds diſcharge themſelves, and overflow the earth with great force; and at the ame time that I was contemplating, at a diſtance, tempeſts and ſtorms falling in the valleys and deep places, as I lifted up my eyes to heaven, I could not but admire the ſerenity over my head, there being not ſo much as a cloud to be ſeen, to trouble or diſcompoſe that beautiful proſpect.

The ſecond thing which makes this mountain admirable, is the prodigious ſnow which falls upon it in winter, which is ſo great, that though theſe mountains are ſo high and broad, there is no part of them uncovered with ſnow, being in many places ſeveral pikes deep. I am not informed how it is in the higheſt part of all, which is moſt properly called the Cordillera, becauſe this being ſo very high, that it is thought to ſurpaſs the middle region of the air, its point alone may perhaps be uncovered; at leaſt when I paſſed it, which has been ſometimes in the beginning of winter, I have not ſeen a crum of ſnow; when a little below, both at the coming up and going down, it was ſo thick, as our mules ſunk in without being able to go forward.

But that which I have obſerved, is, that after a glut of rain, which has laſted two or three days, and the mountain appears clear, (for all the time it rains it is covered with clouds,) it ſeems white from top to bottom, and is a moſt beautiful ſight; for the air is ſo ſerene in thoſe parts, that when a ſtorm is over, the heavens are ſo bright, even

even in the midſt of winter, that there is not a cloud to be ſeen in them for many days; then the ſun ſhining upon that prodigious quantity of ſnow, and thoſe coaſts and white ſhelvings all covered with extended woods, produces a proſpect, which even we that are born there, and ſee it every year, cannot forbear admiring, and draws from us praiſes to the great Creator for the wonderful beauty of his works.

CHAP. VI.—*Of the vulcanoes, and the mines of gold and ſilver of the Cordillera.*

THERE are in this Cordillera, or chain of mountains, ſixteen vulcanoes which at ſeveral times have broke out, and cauſed effects no leſs admirable than terrible and aſtoniſhing to all the country; amongſt the reſt, that which happened in the year 1640 is worthy to be remembered. It broke out in the enemies country, in the territory of the Cacique Aliante, burning with ſo much force, that the mountain cleaving in two, ſent forth pieces of rock all on fire, with ſo horrible a noiſe, that it was heard many leagues off, juſt like the going off of cannon. In all that territory the women miſcarried for fear, as ſhall be related more particularly in its proper place, in the account I ſhall give of the ſubjection of all that country to our Catholic king, being moved thereunto by this and other prodigies.

The firſt of theſe vulcanoes is called the vulcano of Copiagò, and is in about twenty-ſix degrees altitude of the pole, about the confines of Chile and Peru; in thirty degrees is that of Coquinbo; in thirty-one and a half that of La Ligua; in thirty-five that of Peteroa; in thirty-ſix and an half that of Chilau; in thirty-ſeven and a quarter that of Antoco: this is followed by that of Notuco in thirty-eight and a half; that of Villarica is in thirty-nine and three quarters; near this is another whoſe name I know not, in forty and a quarter; and in forty-one is that of Oſorno; and near that in leſs than a quarter of a degree, that of Guanahuca; and in a little more than forty-two degrees that of Quehucabi; and laſt of all are two more; one without a name, in forty-four; and that of St. Clement, which is forty-five and a half.

Theſe are the known vulcanoes of Chile: we have no knowledge of others, which may be as far as the Terra del fuego, becauſe till this time our diſcoveries have not gone ſo far; but there is no doubt but there are ſome, as they are to be found before one comes to Chile, in the kingdoms of Peru and Quito. Diego Ordonnes de Salvos, in the third book and eighteenth chapter of his "Voyage through the whole world," mentions among the reſt, one that is near the fall of the river, in the valley of Cola; it is on a mountain in the form of a ſugar-loaf, like that of La Plata in Potoſi; and that in winter it throws out ſo much ſmoke and aſhes, that it burns up all the graſs within two leagues round about it.

He likewiſe mentions another in the entrance of the province of Los Quixos, near the town of Maſpa; and ſpeaks of another, which broke out near Quito, in a mountain called the Pinta: and he affirms, that the aſhes fly two leagues and a half from the mountain; and he has ſeen them lie on the houſes about four feet deep in the neareſt places to the mountain.

Laſtly, he tells of that of Ariquipa, which buried the vineyards, and had almoſt overwhelmed the city. To this day there are ſeen the effects of that deſolation, which ruined many families, by deſtroying their houſes and poſſeſſions. At the ſame time he obſerves, that the earthquakes which before were frequent, ceaſed from that time; and this perhaps may be the reaſon why the earthquakes in Chile have always been conſiderably leſs than thoſe of Peru, becauſe Chile has more breathing holes for the vapours to exhale by.

There is no room for doubting of the immenſe riches which theſe mountains incloſe in their bowels; for it is a certain argument, and proof it, to ſee only the mineral riches of Chile, which are, as it were, indexes of what may be contained in thoſe rocks, as the rivers which fertilize the country are a proof of the unexhauſted fountains contained in the rocks and precipices.

I think there may be two cauſes aſſigned, why theſe riches do not manifeſt themſelves nor appear more: the firſt is, that general ſtate-reaſon, and inviolable maxim among the Indians, to conceal and not diſcover them to any other nation. This they obſerve ſo punctually, that it is among them a capital crime, puniſhable with death, to break ſilence in this matter, which they make ſacred and indiſpenſible; and if any one among them, either out of intereſt, negligence, or any other motive of conveniency, diſcovers any thing of this kind, his death is infallible, and no power on earth can ſave him.

I remember on this ſubject, that ſome gentlemen having, by preſents, inſinuations, and flatteries, come to the knowledge of ſome treaſure by the means of an Indian, and prevailed with him at laſt to guide them to ſome very rich mines in a remote mountain, he begged earneſtly of them to be ſecret, or otherwiſe he was a dead man, let them take never ſo much care of him. They promiſed him accordingly, and ſo they ſet out, and he brought them through horrid rocks and precipices, where it looked as if never man had ſet his foot, nor ſcarce any living animal. Every day they met with certain marks, which the Indian had told them of beforehand: firſt, after ſo many days they diſcovered a red mountain; and then at a certain diſtance from that a black one on the left hand; then a valley, which began from a monſtrous high mountain or rock; then at ſo many leagues a mountain of chalk. All which ſigns the guide went ſhewing them, verifying thereby the relation he had given them beforehand, and comforting them up to endure the hardſhip, by the hopes of fulfilling at laſt their expectation, and ſeeing their labour rewarded.

Their proviſions failed them, and they were forced to come back to provide more, to purſue their enterpriſe. The Indian was always in fear of being diſcovered, knowing that he run in that no leſs a hazard than that of his life. They returned then to a town; and to ſecure their Indian from his fright of being diſcovered, they locked him up in a room very ſafe; but the night before they were to ſet out again, without ever being able to diſcover how it was done, (for there was no ſigns by the door of any body's going in that way,) as they went to call the Indian in the morning, they found him ſtrangled; by which means, being deprived of their intent, and having loſt the hopes of ſatisfying their deſire, they returned to their own homes, though with a reſolution to try again, being encouraged by ſo much they had already diſcovered.

The other reaſon to be aſſigned for not ſeeking after theſe mines, is the great plenty of every thing neceſſary for life; ſo that hunger, which is the prompter of covetous deſires, being wanting, there are few that care to run a hazard, and loſe their conveniences at home, to go through impracticable deſerts upon ſearch after hidden treaſure; particularly finding already ſo much in the valleys, bottoms, rivers, and fountains; nay, even theſe mines in the low countries are not wrought, becauſe the profit of other products is eaſier. It is probable that people will increaſe; for every day there is a new addition; and there then being more conſumers, the product of the land will be dearer; and proviſions not being ſo cheap as now, men will be more ingenious and induſtrious to ſeek for ſuſtenance under-ground, by the mines and treaſures hid there by providence.

Theſe few years laſt paſt have given beginning to a diſcovery of ſome golden mines, and ſilver ones, on each ſide of the Cordillera: for as I paſſed over it once, I remember that the ſight diſcovers a black mountain at a diſtance, whoſe top ſhines as if it were covered with ſilver; and it is a common tradition that it contains it, and great treaſures beſides, in its bowels; but they are at preſent uſeleſs, for the reaſons alledged; and becauſe one half of the year the mountain is covered with ſnow, and ſo not only uninhabitable, but impenetrable.

They write me word, that on the ſide of the province of Cuyo, they have begun to diſcover other very rich mines, which being below the rougheſt part of the mountain, may be wrought all the year round, and with great conveniency of the miners, and other neceſſary workmen, becauſe carts may come to the very ſituation of the mine, which is of conſideration for the price of the metal. They ſpeak of it with great expectation, by reaſon of the good proofs they have already had in the aſſaying of it in ſmall quantities.

Beſides the mines of gold, and ſilver, and braſs, and lead, which are worked in Coquimbo, and thoſe of quickſilver, which have been diſcovered within theſe few years in Lamache, which is a valley in Chile, I do not know of any others of any other ſort in this Cordillera. I am verily perſuaded there are ſome of chryſtal; for, conſidering the nature of the place, I cannot think there is one any where more proper. Being in the valley of Rancagua, I heard one of our nation tell an Indian, that upwards in the mountain he had found a great deal of chryſtal: he hearing this, out of curioſity went up to ſee what it was; and I heard him tell, that after having gone over ſeveral rocks, he ſaw on the top of a precipice a great opening, and that drawing near to it, he ſaw a profound cave, and in the bottom of it a great plank or table of chryſtal, which appeared to him of the fineſt ſort; but wanting help and inſtruments to get it out, he returned with only this information, and ſome little pieces of a chryſtal ſtone which he found on the top.

CHAP. VII. — *Of the Fountains, Rivers, and Brooks, of the Cordillera.*

THAT which contributes not a little to the admiration we have for this great chain of mountains, is the vaſt number of fountains, ſprings, brooks, and rivers, which we meet with ever and anon, when we go over it: they are ſo numerous, that it is a thing rather to be ſeen than related, though the travellers reap but little benefit by the curious obſervation of them; for by them the ways are the moſt broken and troubleſome that it is poſſible to imagine: they laſt about eight days journey. One muſt ſuppoſe too, that the ſummer is pretty well entered; for in winter they are abſolutely impaſſable, and in the ſpring not without evident danger of one's life; becauſe one travels all the way on a path ſo narrow, that there is but juſt room for a mule's feet. On one ſide are prodigious precipices, which have at the bottom a furious and profound river; and on the other hand huge rocks, and ſome part of them ſtanding out ſo, that if the mule's loading, (as it often happens, and I have ſeen it,) touches part of them, it throws down the mule headlong, and ſends her rolling down till ſhe comes to the river at the bottom, which carries her away to the ſea without ſtopping, except it happen upon ſome turning of the river to get it on the ſhore; where, though the lading may be ſaved, yet not the mule's life, becauſe it is impoſſible almoſt to get her up again.

In many places one is forced to light; and even a man on foot is not very ſafe, becauſe ſome of the coaſts are ſo ſtraight and ſlippery, that it frights one to walk on them.

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The aſcents and deſcents of the hills are ſo ſteep, that when from below one looks at thoſe who are above, they look like figures; and for my part I thought it a temerity, if not an impoſſibility, to venture to get up to them.

The brooks and rivers which croſs the ways every ſtep are ſo violent, that there is no head ſo ſtrong, but it turns to look on their current; which is ſo ſwift, that if it comes up to the mule's ſaddle, there is no paſſing without evident danger of one's life; for theſe ſtreams coming from on high, have the ſtrength of a mill-ſtream, carrying along with them looſe ſtones, which overturn a loaded mule as it were a chicken; ſo that it is neceſſary ſometimes to ſtay two or three days till the ſun does not ſhine; for then theſe brooks are lower, becauſe there is leſs ſnow melted: and for this reaſon it is always beſt to paſs early in the morning, they having had all the night to run lower.

It was neceſſary for an allay of the dangers and irkſomeneſs of theſe ways, that God ſhould temper the rigour of the ſufferings, by the variety and diverſion which ſo many waters give in their riſe and courſe: ſome are to be ſeen breaking out from almoſt an imperceptible height, and meeting with no intermediate object, the whole maſs of water, which is uſually very great, diſſolves itſelf by the way into ſo many drops, which make a lovely proſpect, like ſo much pearl falling; and being mingled by the force of the air, which drives them acroſs one upon the other, it ſeems a chain hanging from its firſt iſſue to the earth; where, taking another ſhape, it becomes a running brook, and unites with the current of the chief river which runs in the middle.

I ſaw others, which before they got to the earth, divided into two branches, forming like a thick ſhower in the midſt of the way, or atoms in the ſun beams; but it is impoſſible to paint all the variety of objects produced by theſe ſeveral motions and compoſitions of ſtreams and fountains. I cannot leave them without mentioning one called the Eyes of Water, which is very remarkable; it is in the laſt meſa but one, at the foot of the mountain. I call it meſa, becauſe providence has, for the relief of travellers, diſpoſed, at ſome leagues diſtance, little valleys and agreeable plains, which eaſe the travellers in this moſt tedious and long aſcent.

This valley is environed with a wall of moſt prodigious high rocks; it may be a mile or thereabouts in its diameter, and is all the year round full of greens, odoriferous plants and flowers, which make it a picture of paradiſe: in the midſt of it ſprings up this fountain, or fountains, becauſe the ſprings of water are many that riſe from the ground all about, leaping with great force into the air, which in a little ſpace all unite, and make two great bodies, each of them full of water, as clear as chryſtal. Theſe two heads begin a kind of combat a little below, and mingling in their courſe with one another, as if ſome ingenious artiſt had ordered it, make a great many turnings and windings, ſometimes far from one another, and ſometimes united through the whole valley, till at the end of it, joining together, they fall into one canal, which empties itſelf into the principal river, compoſed by many of theſe rivulets.

One property of all theſe chryſtal ſtreams, is extreme coolneſs, which they never loſe, no, not when the ſun ſhines out moſt in the heat of the day; it is ſuch, that no body can drink half a cup-full of it without reſting, or taking breath; and though all theſe ſprings have this quality, yet none in ſo intenſe a degree as this fountain of Los Ojos de Aqua; of which, though the weather be never ſo hot, it is not poſſible to drink above two or three ſups; and one can hardly endure to hold the water in one's hand above a minute.

Behind one of thoſe high mountains, which is to the eaſt of this fountain, there is a great lake or pond, ſo deep and clear, that it appears as if it were of azure; and there is a tradition, that the laſt of the Ingas, kings of Peru, cauſed vaſt quantities

of treaſure to be thrown into it, when he ſaw that he could not redeem himſelf, nor ſave his life by them; though it ſeems hard to believe they ſhould go ſo far to do a thing they might have executed much nearer home. The waters of this lake have no iſſue, being environed on all ſides with very high rocks, and therefore it is thought that it comes under-ground to thoſe fountains called the Ojos de Aqua, and empties itſelf by them.

I cannot paſs over in ſilence another fountain which is at the foot of the Cordillera, on the other ſide towards Cuyo. There is a river called the Rio de Mendoca, which comes down from the eaſt, not inferior to that of Aconcaqua in Chile, which runs to the weſt into the South Sea. Into theſe two rivers are emptied moſt of the little ſtreams of the mountain; that of Mendoca meeting in its way with a chalky mountain, bores it quite through, and leaves a bridge broad enough for three or four carts to paſs a-breaſt. Under this bridge is a great table of rock, over which run five different ſtreams of water, proceeding from ſo many fountains; which water is extremely hot and very good for many diſtempers. The ſtones over which it runs are of a green like emerald. The vault of this bridge ſurpaſſes in beauty all that human heart can produce; for there hang down from it ſeveral iſicles, in ſhape of flowers, and pendants of ſtone like ſalt; for the humidity which penetrates from above, makes it congeal like points of diamonds, and other figures, which adorn this vault; through which there falls perpetually a quantity of great drops, as big as peaſe ſome, and others as big as yolks of eggs; which, falling upon the ſtone table I have mentioned, are turned into ſtones of ſeveral ſhapes and colours, of no ſmall value.

There is another bridge on the other ſide, called the Inga's Bridge, either becauſe he cauſed it to be built, or becauſe (as is moſt probable) his generals were the firſt diſcoverers of it, and paſſed over it; for it is not poſſible that any human art could make ſo bold an attempt as has been brought to paſs by the Author of nature in this place. This bridge is formed by a moſt prodigious high rock, which is cloven in two, as if it had been ſawed down, only covered on the top; it is hollow to the very river, which is large and rapid, and yet the noiſe of it is no more heard on the top, than if it were a little brook; which is a ſtrong argument of the great diſtance there is between the top and bottom of the mountain; for the opening not being above eight feet over, it being eaſy to leap from one ſide to the other, it would be thought, that a great river being ſo ſtraightened as to go through it, ſhould make a very great noiſe in paſſing ſuch a ſtraight place with ſo much force; and if the noiſe does not reach the ear, it is becauſe of the great diſtance. I myſelf have gone to the ſide of this bridge, and looked down, (though with great horror, for it ſtrikes a ſhivering into one, to contemplate ſuch a depth, than which I have not ſeen a more terrible one;) I not only did not hear any noiſe, but that great river appeared a little brook, hardly to be diſcerned.

Theſe are the entertainments for the eye in paſſing this part of the Cordillera. As for the many others which may be met with in ſo vaſt an extent, who can relate them? I believe there are thoſe who know much more than what I have here deſcribed, which is only what I have ſeen; but from ſo little it is eaſy to infer more; for if only the riſe of two rivers have afforded ſuch matter of admiration, what may not be produced in the birth and courſe of ſo many others, as we ſhall deſcribe in the following chapter?

CHAP.

CHAP. VIII.—*Of the vaſt number of Rivers which take their Riſe in this Mountain, and empty themſelves into the Sea.*

THE great Author of nature has founded the beſt part of the beauty and fecundity of the fields of Chile in this range of mountains called the Cordillera, in which, as in a bank that can never break, he has depoſited its treaſure and riches, by aſſuring the annual tribute of ſo many brooks and ample rivers which are to fertilize the earth; for neither can the country maintain its fertility without ſuch moiſture, nor ſuch a moiſture maintain itſelf all the year without ſuch quantities of ſnow, as are laid up in the deep hollows of it in the winter, to feed in the ſummer the many rivers that are derived from it.

Who can demonſtrate the number of them at their riſe? But one may gueſs at the prodigious quantity of ſnow which ſupplies them; for though it cannot be ſeen all in a maſs, becauſe its reſervatories are impenetrable, yet its effects do manifeſt it; for beſides the feeding of innumerable rivers which run to the eaſt, and empty themſelves into the north ſea, and ſupplying prodigious lakes in the province of Cuyo, thoſe which run to the weſt, and enter the South-Sea, (not reckoning what may be by the ſtraights of Magellan, and the Tierra del Fuego,) are above fifty, which may be well multiplied by four apiece more which they receive, and ſo make two hundred; which arrive at the ſea ſo full and deep, that ſome of them have water enough for the navigation of the galloons and ſhips of great burden; which is the more to be admired, becauſe their courſe is ſo ſhort, the moſt extended of them not paſſing thirty leagues in length.

The firſt river of this kingdom, beginning from the confines of Peru about the 25th degree of latitude, is the river called the Salt River, which comes from the Cordillera, running through a deep valley: its waters are ſo ſalt, that they cannot be drank; and when ſometimes horſes, deceived by its pure clear colours, happen to drink of them, they are turned into ſalt by the heat of the ſun, ſo that the bodies ſeem of pearl, they beginning to petrify by the tail.

The next to this is the river of Copiapo, in 26 degrees; it runs 20 leagues from eaſt to weſt, and makes a bay at its entrance into the ſea, which ſerves for a harbour for ſhips. In 28 degrees the river of Guaſco does the ſame, and forms a port.

After this comes the river of Coquimbo, in 30 degrees, whoſe port is a noble bay, adorned on the ſhore with freſh and beautiful myrtles, and other trees, which continue within land as far as the town, and make a noble and pleaſant grove, which out-does all the contrivances of art. There are fiſhed in this coaſt runny-fiſh, Albucores, and many ſorts of excellent fiſh, as alſo oyſters and great variety of ſhell-fiſh.

The next to the river of Coquimbo are thoſe of Tongoy and Limari, about 30 degrees and a half eaſt; and then in 31 degrees the river of Chuapa empties itſelf into the ſea. Upon that coaſt there is found a ſort of delicate ſhell-fiſh, which they call Jacas.

Between the one and thirtieth degree, and the two and thirtieth, the rivers Longotoma and La Liga enter the ſea; and about thirty-three degrees that of Aconcagua which is the great river which comes down, as we have ſaid, by the way of the Cordillera. This is a very deep river; and though it runs through the large valleys of Curimon, Aconcagua, Quilota, and Concon, which being cultivated with all kinds of products, particularly wheat, flax, hemp, &c. and, by conſequence well watered, yet this river arrives at the ſea as full and deep as if they had not drained it by the way to fertilize their fields.

About

About thirty-three and a half, follows the famous river Maypo, which I cannot tell whether it be more famous for its good qualities, or for the danger and difficulty of paſſing it; many have been drowned in it, and every day miſcarrying by it. It is of ſo rapid a current, and ſometimes ſwells ſo high, that no bridge can reſiſt its fury, but it is carried away by it; for which reaſon, at this day it has no other but one of many cables joined together, and lying a-croſs from one ſide to the other. Its waters are ordinarily thick; and it enters the ſea with ſo much force, that it makes its way in it diſtinct for a good while; its waters are perfectly known from thoſe of the ſea by a circle they make: they are beſides very cold, and yet it quenches thirſt but ill, for it is brackiſh, which makes the fleſh of the ſheep which feed near it, to be excellent in taſte. There are fiſhed here alſo moſt excellent fiſh, particularly trouts, eſteemed all over the country.

There falls into this river, among others, that of St. Jago, otherwiſe called the river of Mapocho, which is divided into ſeveral ſtreams, to water the diſtrict of that city; and it does it ſometimes more than we could wiſh, when it overflows. Not far from the city, it hides itſelf under-ground, leaving a bridge of two or three leagues over it, while it maintains a ſilent courſe underneath; at the end of this ſpace it comes out in bubbles among a grove of cherry trees, with its waters as clear and purified as chryſtal; ſo that though it ſeems to hide itſelf, and die, it is only to ſpring up again more beautiful and ſtately, being of a ſtronger current, before it is again ſpread and diffuſed to fertilize the fields. At this place of its ſecond birth, there ſtands an ancient and illuſtrious convent of St. Francis, which, becauſe it is within ſight of a vaſt foreſt of trees, is called St. Francis of the Mountain, in which there have been, from time to time, moſt holy men of the firſt founders in that province, and who imploy themſelves in the worſhip of God, and help of their neighbours, with great zeal and reputation of their order.

The river of Poangue, which falls likewiſe into Maypo, runs alſo many leagues under-ground: this cannot riſe with more advantages than at its firſt fountain; for its waters are, at the very ſource, ſo clear, delicate and ſweet, that they cannot be mended; it has not its original like all the reſt, from ſnow-water, but from minerals of gold, through whoſe veins it makes its way, as if it had an aqueduct of that precious metal: its courſe is bordered on each ſide with moſt beautiful trees, which contribute to make its waters wholeſome: they are indeed of themſelves a remedy; for they help digeſtion ſo viſibly, that if any one has exceeded and eat more than his ſtomach can well embrace, one draught of this water will relieve him, ſo that he ſhall be hungry again in a little time. Neither is it uſeleſs under-ground; for while it is there, it communicates itſelf to the whole valley by ſubterranean conduits: the effect of which is viſible; for though in the ſummer it does not rain a drop, and the valley has no other watering, yet it brings as ſeaſonable a crop, and as reliſhing fruit, as any other that has the help of rain and other irrigations; neither have I ſeen any where larger or more delicious melons, nor more abounding and well-grown maize, than in this valley.

There are two other rivers which fall into Maypo, which are called De Colina and Lampa; which, uniting together about ten or twelve leagues from their firſt riſe, make the famous lake of Cudaguel ſo profound and deep, that great ſhips might ſwim in it: this lake is about two leagues long, all bordered with delicate willow trees, and other greens, which keep their freſhneſs and greenneſs all the year round; and, that nothing may be wanting to its agreeableneſs, it is full of excellent trouts and Vagres, which

ſometimes are ſo plentiful, that they are eaſily catched; and this uſes to be one of the greateſt diverſions of the citizens of the city of St. Jago. There are other lakes, as thoſe of Aculco, which empty themſelves into this river of Maypo, on the contrary ſide to that of the clear river: there are alſo bred in it ſmelts of above a foot long; the very name in Spaniſh declaring their excellency, it ſignifying a royal fiſh: ſome years there is ſuch plenty of them, that the whole city may keep Lent with them alone, without buying any other fiſh from the ſea; which, though it is very good, yet it never attains to the delicacy of the river-fiſh, which is ſo ſweet and healthy, that it is uſed to be given to the ſick and convaleſcent.

After Maypo, is the river of Rapel, not at all inferior to the other; it enters the ſea about the 34th degree, and as many minutes; about four or five leagues before the two famous rivers of Cachapoal and Tinguiritica join together, and are no leſs in debt to mankind for the many people they have ſwallowed, than that of Maypo. Among others which increaſe their rapid current, are the rivers Mallua and Chambaronigo: on the banks of this the order of the Redemption has a convent, for the inſtruction and edification of all that country. The Jeſuits have alſo a novitiate, who have for neighbours a monaſtery of St. Dominick. The lands thereabouts are extreme fertile, have excellent paſtures for the fattening of cattle, and are much valued all over the country. In thirty-four degrees and three quarters is the river Delora, which receives thoſe of Teno, Peterroa, and Metaquito, whoſe ſtream is ſo rapid, that many periſh in it. Theſe rivers water moſt rich lands, and a delicious country for the breeding and feeding of all ſorts of cattle; and indeed there is not a foot of ground unemployed in them.

The great Maule appears at thirty-five degrees; and it makes the limits of the archbiſhoprick and juriſdiction of the city of St. Jago: all that was incloſed between this and Rapel, Cachapoal, and Tinguiritica, was called by the natural Indians, Promocaes, that is, a place of dancing and delight, to expreſs the pleaſantneſs of that country. They were not out in this character at all: I remember once, that travelling in this country, when I came to a farm of any Spaniard, he would entertain me with nothing but the praiſes of it, and that with ſo many particulars, that I could not imagine it could be out-done by any in the world; but when I came to another farm, the maſter of it would relate to me ſuch admirable properties of his, that the firſt ſeemed but ordinary to me. Thus I found every one ſo in love with the ſpot he lived on, that I could not but admire the whole, and have a great idea of the excellency and temperament of this land, as well as of its proviſions. Partridge are abounding, and all manner of game; and as for fiſh, there are ſuch quantities of ſmelts and trouts, that they take them when they will, being as ſure almoſt to catch them, as if they had them in ponds at home. I have heard them often ſay, that when they were ſat down to table, if any one longed for a freſh trout, they had no more to do, than to ſend and catch one, which they would have ready dreſſed before they riſe from the table. The river Maule receives the clear river, and that of Cauquenes; and though it be as deep again as either of them, yet it is leſs dangerous for paſſengers, and fewer people are drowned in it; becauſe near the ſea, by the yard for building of ſhips, it ſpreads itſelf, and makes a large paſſage, where the king has a ferry for the conveniency of paſſengers. The Auſtin friars have alſo a convent here, and take care of the Spaniards, and their black and Indian ſervants, who people all the banks of this river, and are numerous, living in ſeparate farms all along the country: theſe they call Eſtancias.

Now we enter the juriſdiction of the city of the Conception, where the governor reſides; and there is a garriſon of the militia. The biſhoprick of the city of Imperial begins

begins alſo at this river, which has for next and immediate neighbour the peaceable and noble river of Itata, three times as large, and as deep as the Maule, and enters the ſea at about thirty-ſix degrees; its courſe is among rocks, and ſo is leſs uſeful to the land, becauſe it cannot water it: they paſs it upon rafts, and there are alſo fords in ſome places. About the middle of its courſe, the furious torrent called Nuble joins it: this waſhes the walls of the city of St. Bartholomew of Chillan, an antient garriſon of the Spaniards, and a ſingular proof of their bravery and fidelity.

Immediately next to this river is the ſpacious and agreeable bay of the Conception, into which the ſlow and ſilent river of Andalien empties itſelf at thirty-ſix degrees and three quarters. There is another ſmall river which paſſes through the middle of the city, having firſt precipitated itſelf from a high rock, and affording matter to the induſtry of the inhabitants, for all ſorts of water-works among pleaſant groves of laurels, and myrtles, and other odoriferous plants which adorn its banks; and as it falls from ſo high, it invites the induſtrious planters to contrive mills for the ſuſtenance of the city; of which there are already a great many.

Two leagues further from this bay, in the thirty-ſeventh degree, the ſo much celebrated Biobio enters the ſea. It is the moſt powerful river of all Chile: it has at its entrance two or three miles in breadth, more or leſs, according as it ſwells or ſhrinks, which is a great deal, conſidering its ſhort courſe: but that is not the chief thing which makes it famous, and deſerve ſo much praiſe; it is its wholeſome waters; for (beſides the particular excellence they may acquire, by paſſing through veins of gold, which nevertheleſs many other rivers of this country have too,) it has a ſingular advantage, by a ſmall river which falls into it; which river, taking its riſe and courſe among Sarzaparilla roots, communicates to the other its virtue and good qualities, and makes it a cure for many infirmities. There is a tradition, that at the ſource of this river there were moſt rich mines, worked before ever the Spaniards came into theſe parts. Upon this information, Don Alonſo de Sottomayor, preſident of the country, ſent a band of ſoldiers to view them, as they did; though as they came back, they were laid wait for by the Indians, our enemies, and had a ſmart engagement with them, and had much ado to eſcape with their lives. This Indian people do always as much as they can to hide from the Europeans the treaſures and riches of their country, as it has been ſaid already.

This river is the bounds which divides the Spaniards and our Indian friends from the Indian enemies: in winter the river overflows ſo, that all the fords are unpaſſable; and ſo the ſoldiers may take ſome repoſe 'till the ſpring, at which time they are to begin their inroads again. The enemy on his ſide has no garriſon, nor place of ſtrength; for they truſt to their mountains, to which they can retire at any time: but the Spaniards have many garriſons all along the river, with which they bridle and keep in awe the potent rage of their proud enemy, who alone has given them more trouble than all the reſt of America.

Their chief forts, beſides the cities of the Conception and Chillan, are thoſe of Arauco and St. Philip, in which there are generally about ſixteen hundred natural Spaniards, beſides the Indian allies, who are numerous. The firſt of theſe is upon the ſea-ſide, and the other nearer the Cordillera. There are others between on each ſide of the river, and ſome pretty far into the enemy's country. I can name nine of theſe forts; which are, that of St. Angol, of the Nativity, of St. Anne, of St. Roſendo, of Good Hope, of Talmacahuida, of St. Peter, of Colcuta, and that of Levo. Theſe are all provided with great guns, and a ſufficient number of ſoldiers; and at ſuch proportionable diſtances from each other, that they can ſoon receive notice of what is

neceſſary to be known from the firſt to the laſt by the cannon-ſhot, according as it may have been concerted beforehand.

The company of Jeſus has here two reſidences, one in Arauco, and the other in the fort of Good Hope; from whence they alſo make their attempts, not againſt the bodies, but to ſave the ſouls of their enemies, engaging with hell itſelf, and obtaining over it daily and glorious victories, as it ſhall be told in its proper place; for now we muſt follow the deſcription already begun of the rivers of Chile.

After Biobio follow four others much inferior to it: they are the rivers of Colcura, Arauco, Lavapie, and Levo, which empties itſelf near the thirty-eighth degree; and a little further, that of Ralemo, which a little from its ſource is called Coypo, in near thirty-nine degrees. The pleaſant and peaceful river of the Imperial enters the ſea, having firſt incorporated with its ſtream, the river called the Ladies River, becauſe of the delicacy of its waters and quiet current. More above, near its ſource, it receives the two rivers of Curarava and Eyow, which, before they meet to enter the river Imperial, form the much celebrated lake of Puren, a moſt unconquerable fortreſs of the Indians, who are more ſecure in it, than the Spaniards in any of theirs.

About half a degree beyond the river Cauren, which is the ſame as the Imperial, the river Tolten pays its tribute to the ſea, and is deep enough for great ſhips. About eight leagues further, the river Queule does the ſame; which, though ſmall, yet receives barks in it, and is about nine leagues upon a north and ſouth line from the famous river of Valdivia.

CHAP. IX.—*Of the famous Port and River of Valdivia.*

THE river and port of Valdivia, never enough commended by foreign writers, and no leſs admired by thoſe who have ſeen it, had its name from Pedro de Valdivia, firſt governor and conqueror of Chile. It is, as it were, in the centre of the whole kingdom, at almoſt forty degrees latitude ſouth-weſt from Seville in Spain; upon a plain map one thouſand nine hundred and ſeventy leagues, meaſured by the heavens. The ſun is five hours, and a third part of an hour, in going from the meridian of Seville to the meridian of Valdivia; ſo that when it is noon at Seville, it is in Valdivia ſix o'clock and forty minutes in the morning. Its longeſt day is of fourteen hours, or thereabouts.

This river has its opening to the north; and becauſe of the depth of its waters, great ſhips can go up to the very city, which is two or three leagues from the ſea: when they are there, they can lie ſo near the ſhore, as with a plank to go in and out, and take in and unload their cargo, without the help of boats. There is juſt over-againſt the city, a fine iſland, called the Iſland of Conſtantine, with two little ones, one before, and the other behind the iſland. The river is navigable on both ſides the iſland; but becauſe the ſouth branch has more depth, the great ſhips come in that way, and the leſſer by the north branch.

There are two high points of land, like rocks, which mark the entrance of this river; the biggeſt is to the north, and is called Bonifacio's Hill; the ſouth is leſſer, and is called Gonçalo's Hill. When one is entered ſome way up the river, there is another ſtraighter paſſage, which is the key of the port, or rather ports, becauſe there are many harbours within. This entrance has alſo two hills, which come ſo near each other, that I have heard a captain, who was ſent to ſound the river, relate, that in the middle he was within muſket-ſhot of either hill; the ſouth one is called Morro de los Mançanos.

Mançanos, and the oppoſite Morro de Niera: ſo that, according to this account, there might be an iron chain laid from the one to the other, with which, and two forts raiſed on each ſide, the entrance would be made impenetrable.

As ſoon as this ſtraight is paſſed, there is on the ſouth ſide a noble port; for though all the river may be called ſo, for the quietneſs of its water, yet this is more advantageouſly ſituated, by being covered with the mountains of the land: it is called the port of the Corral: it forms a bay capable of receiving great fleets. When you have paſſed this port, there appears the firſt iſland; between which and the land on the ſouth ſide, there are many ſhoals and ſands; wherefore the ſhips take the north ſide, and go between this iſland and the great one; and then follow their courſe up to the city, by the channel of the great iſland. The leſſer veſſels may keep the other ſide of the iſland.

Beſides all theſe good qualities, this port has other advantages from the land, by the fertility of the country, which produces corn and fruits of all kinds, except grapes, which do not ripen here ſo well as in other parts of Chile, from which wine is brought to theſe parts: but it has great plenty of beef and mutton, fowls and veniſon. It has alſo wood for the building of ſhipping; and that which is above all, it has the richeſt mines of the fineſt gold in Chile; and in all America there is none comes up to it, but the gold of Carabaya.

This is the account of Antonio de Herrera. He adds, that there was an Indian, who had every day a revenue of twenty-five or thirty peſos of gold; which being obſerved by the governor Valdivia, he ſent the Adelantado Hyeronimo de Alderate to Spain, to inform His Catholick Majeſty of the great riches of the kingdom of Chile, that His Majeſty might make the more eſteem of it; and to invite foreigners to come and people the country, and help him to conquer it, he ſent ſome Spaniards by land, whoſe ſtirrups, breaſt-plates, and all that uſed to be iron about a horſe, were of fine gold; and that, not ſatisfied with this, he had reſolved to go in perſon, to inform His Majeſty, and obtain from him the confirmation of his government: to which end he employed twenty thouſand Indians to bring him gold, deſigning to embark and ſail through the ſtraights of Magellan, if death had not prevented him.

This city was founded by the governor Valdivia, in the year 1552, upon a high riſing, but plain ſide of a hill, and above the reſt of the country.

The famous Indian lady Recloma was very inſtrumental in helping towards its conqueſt and foundation. The ſtory was thus: the Spaniſh forces were come to this river, conquering the country all the way before them; but here the Indians not being willing to let foreigners ſettle in their country, took up arms, and making the river ſerve for their defence, hindered the progreſs of Valdivia, and gave him great trouble. But he being a man of great courage, was not daunted by this reſiſtance, but endeavoured to paſs the river to engage the enemy.

Upon this occaſion, this brave Indian lady, either inſpired by Heaven, or touched by compaſſion of ſo much blood as muſt be ſhed on both ſides in the recounter, offered the governor, that ſhe alone would gain him the victory, without any other force, than that of her eloquence and courageous mind. "Stay here," ſaid ſhe, "and go no farther; for I will put all this province into thy hands, and will make thee this day lord of all that thy eyes can diſcover. Stay for my return here, and do not ſuffer any of thy ſoldiers to paſs on a ſtep further." The governor promiſed to do ſo; and, upon his word, and promiſe of good treatment to the Indians who ſhould ſubmit to his God and his king, ſhe threw herſelf into the water, and, in the preſence of them all, ſwam the river. When ſhe was landed, ſhe deſired audience of the general of the Indians; to whom ſhe delivered her meſſage with ſo much force of eloquence,

that they ſubmitted to her reaſons, and promiſed to accept of what terms ſhould be given them. With this the famous Recloma returned to the Spaniards, ſinging victory, laying at their feet the richeſt prize they could wiſh; and ſuch a one, as after much time, expence, and bloodſhed in the conqueſt of it, they would have thought themſelves well paid to be maſters of ſuch a country, whoſe golden mines they preſently began to work: by which means the city increaſed ſo faſt, that if the devil had not troubled the peace, and cauſed the rebellion of the Indians, which ruined it, it had been one of the firſt and beſt cities of the Indies.

The Hollanders, our enemies, are well informed of the nature of the country, and the excellency of the port, and do all they can to get poſſeſſion of it; but our Saviour, who, by his grace, has hitherto preſerved thoſe countries free from hereſy and its corruption, will not permit that this Hydra of hell ſhall infect that air with its venomous breath, nor bread a contagion in the purity of its faith, which is propagated ſo ſincere and true in the hearts of thoſe new Chriſtians.

This has been proved by the ſucceſs of a fleet of theirs in the year 1643, when theſe rebellious pirates paſſed the ſtraights of Magellan, with a deſign to ſettle at Valdivia; for though in effect they did people the place, having firſt paſſed by the iſlands of Chiloe, where our company has ſo many glorious miſſions, in which they threw down the altars and the croſſes, and committed other enormities proper to their impiety and obſtinacy, yet at laſt they came off no laughers, but had reaſon to lament rather. The ſame befell another of their generals, called Antonio Sivaſtro, many of his fleet being taken priſoners, and thirty of them hung up by the feet, as is related by their own authors, John and Theodore de Brye.

But in this ſecond occaſion, they paid yet more ſeverely for their attempt; for in the very ſame iſland where they had committed all theſe diſorders, God took the life of the general, puniſhing his unhappy ſoul with the due chaſtiſement of ſuch an undertaking. They loſt the ſhip which carried their proviſions, their ammunition, thirty pieces of artillery, all the brick and lime, and other materials for building three forts, which they had orders to raiſe in the river of Valdivia, and on the iſland of Conſtantine in that river; and having afterwards got to Valdivia, and begun to people their new general, whoſe name was Elvis Aramans, was forced to ſhut up all his people in the iſland of Conſtantine, becauſe they run from him continually, and forſook him; beſides the priſoners made in the iſlands of Chiloe, and others deſtroyed by us, and the warlike Indians.

In ſhort, God having eſpouſed this cauſe as his own, they were tormented with hunger; and before the Spaniards, who were on their way, could come up to them, their own diſeaſes and loſſes obliged them to weigh anchor, and be gone. This was their wiſeſt courſe; for if they had ſtaid till the fleet from Peru had come up to them, and the land forces from Chile had attacked them, they had not got off ſo well; for the Marquis of Manſera being ſo good a ſoldier himſelf, and ſo zealous for God and his king, immediately, upon the firſt news of their arrival, had ſet out ten ſail, which he provided with powder and ammunition, and diſpatched them to give advice along the coaſt; then he prepared a navy, which was to be of 16 galloons and ſhips, and 4000 Spaniards, reſolving to go in perſon, or at leaſt to ſend his ſon.

The governor of Chile, the Marquis of Baydes, with his accuſtomed vigilancy and readineſs in things, where the ſervice of God and the king are concerned, and as a captain of that valour and experience, which he ſhewed in Flanders, was ready to enter by land, after having provided all the ports of the kingdom with the army kept on foot by His Majeſty; ſo that if the Hollander had had yet more force than he had, being

being ſo hard preſſed both by ſea and land, he muſt either have relinquiſhed the port, or periſhed there for ever.

It has been ſeen on this occaſion, that one man is as good as many in the defence of the cauſe of God and their country, againſt any invader whatſoever, every one deſpiſing all dangers on ſuch an account; but particularly Colonel de Villa Nueva Soberal ſignalized himſelf at this time; for being general of the kingdom, and governor of the country of Arauco, he ventured himſelf in a ſmall bark in the midſt of winter, to ſolicit at Lima the neceſſary ſuccours, and aſſiſt the viceroy for a more quick diſpatch of all things.

He took with him father Domingo Lazaro, of the company of Jeſus, that he might inform him as an eye-witneſs of all that had paſſed, he being at that time employed in Chiloe in the apoſtolical miſſions, when the Hollanders landed: he, nevertheleſs, with undaunted courage, embarked in the midſt of the winter in a tempeſtuous ſea, as it is at that time; and without apprehenſion of all thoſe dangers, and of being made a priſoner by the Hollanders, who lay in his way, and could ſcarce be avoided, he arrived at the city of the Conception, where he gave an account of all that had happened; by which means the country was immediately prepared, and in arms for their defence.

There is another action which ought not to be concealed, as well becauſe it ſhews the great prudence of the Marquis de Baydes, as the outrage of 20 Spaniſh ſoldiers. It being uncertain whether the enemy were ſtill at Valdivia, or whether he had abandoned it, they offered to go in a boat up the river, as they did by the governor's command; and without being terrified by the manifeſt danger they expoſed themſelves to, they went as high as the town; and having diſcovered the ill condition of the enemy, and his deſign of leaving the place, they returned with that advice. This moved the general not to attack them, as was at firſt reſolved; but it did not hinder his intention of peopling the place, (as I believe was done by laſt ſummer;) for I have advice from Panama, that there is a garriſon of 600 Spaniards left there; to which our Indian friends being joined, and the coaſt Indians alſo, that poſt will be henceforth inexpugnable, and by it the South Sea will be ſecured; for it being already ſo dangerous to ſail through the ſtraights, and ſo eaſy for us who are at home to defend this poſt of Valdivia, and having all the land our friends, we receive ſuccours both from the Spaniards and Indians, who are ſo friendly, that their caciques ſent to offer their aſſiſtance of their own accord againſt the Hollanders; I ſay it will be very hard henceforward for any one to give us any diſturbance.

CHAP. X. — *A Continuation of the Deſcription of the Rivers of Chile, and particularly thoſe which run to the Eaſt; and of the Difference between the one and the other ſide of the great Cordillera.*

THE river next to that of Valdivia is that which is called Chalbin; it is deep, and capable of great veſſels. From this river, to a place called the Punta de Galera, it is about two leagues; and from this to Rio Bueno ſeven; into which fall five rivers more, and one which is beyond the bounds of Valdivia.

After this is the Rio Chico, which comes from a lake at the foot of the Cordillera; in which lake are baths to cure leproſy and other infirmities. Next to this is the Rio de la Ballena, which is cloſe to the cape of that name, ſo called becauſe of a whale of prodigious bigneſs, which died upon that coaſt. After this, you come to the Archi-

pelago of iſlands, into which falls the river called De los Rabudos, becauſe of an Indian nation of that name, ſo called, becauſe it is ſaid they are born with tails, as father Gregory of Leon deſcribes them in his map. More on to the ſouth is the river De los Coronados, named ſo by the company of a ſhip which put in there on the day of the Forty Martyrs ſo called.

After theſe there are many rivers all along the coaſt; the firſt is called De la Eſperonſa, or of Hope, becauſe of the wiſhes, that one day the light of the Goſpel may reach to thoſe parts by means of the miniſters of it. The ſecond is called Rio ſin Fundo, or the river without a bottom, becauſe of the great depth of it. The third is called the Gallegos, from a Spaniard of that name who ſailed along thoſe coaſts, and, like another Icarus, gave his name to one of them, by being drowned in the ſea by it, at a cape which has the ſame name. Then follow the rivers De los Martyres, and De los Apoſtolos; and immediately after them two others. The firſt has no name, the ſecond is called De los Gigantes, or of the Giants, becauſe here they were begun to be ſeen, and they reach all along the ſtraights. The famous river called De la Campana, enters at a place named El Ancon ſin Salida: this name was given to the river, becauſe its two arms ſeem to form the ſhape of a bell. There are two rivers more before you come to the ſtraights, to wit, that of De los Paxaros, or of birds, by reaſon of the vaſt quantity of them that were upon it, in that part which comes towards the ſtraights; and the other of St. Victorian, called ſo from the opening, to which the ſame ſaint gives its name. As for the other rivers which run among the iſlands, and thoſe which empty themſelves into the ſtraights, they are many, and ſhall be deſcribed in their proper places.

Hitherto we have deſcribed the rivers of moſt renown of this long extended kingdom, which run from eaſt to weſt, and empty themſelves into the South Sea; thoſe which run from the oppoſite part of the Cordillera, towards the North Sea, are not ſo well known, becauſe thoſe parts are leſs inhabited, at leaſt, by ſuch as can give us a good account of them. The moſt remarkable of them are thoſe of St. John, and of Mendoga, which are very large rivers, and empty themſelves into the famous lake of Guanacache.

The governor Hieronimo Lewis de Cabrera, a gentleman of great valour and merit, met with ſeveral great rivers in his paſſage over thoſe vaſt plains called the Pampas, where, as at ſea, people are fain to travel by the compaſs, not to loſe themſelves: he was in queſt of a nation called the Ceſſates, of whom we ſhall treat hereafter in its proper place. They were forced to paſs many great rivers, and, without doubt, there are many more as far as the Pole.

Nevertheleſs I am perſuaded, that theſe rivers do not equal thoſe which run oppoſite, and enter the ſea on the coaſt of Chile; and this may be clearly gathered from the difference which may be obſerved in paſſing the Cordillera, between each ſide of the mountain, which is ſo great, that they ſeem two different worlds, the eaſt and weſt parts; and one would think Heaven had put theſe mountains to divide them as a wall, and keep off from the weſt, all the ſtorms and ill weather of the eaſt, where are the provinces of Cuyo and Tucuman, not to diſturb the ſerenity and tranquillity of Chile and the weſtern parts. Any one that travels to the top of the high chain of mountains, may experience this clearly; for there he diſcovers both horizons, and when he looks to the eaſt, all is covered with groſs vapours, which ſeem to hinder the light, and ſhadow all the country; and at the ſame time looking weſt, the heaven is ſo chriſtalline and bright, that it cauſes pleaſure and joy to look on it. The eaſt ſide is full of a cloudy thick air, which engenders ſtorms and hail, with horrible thunders and lightnings,

nings, which fright all the inhabitants: on the other ſide, in the weſt, there is not a cloud to be ſeen, but clear and bright, as if the heavens themſelves were ſuch a partition as the Cordillera to divide the climates, as that upon earth does produce a difference in the trees, plants, and animals on each ſide.

A curious obſerver contemplating once, from this heighth, this ſo remarkable difference, ſaid, that nature, in the fabrick of this part of the world, ſeemed to have turned her back upon the eaſtern provinces, and looked with her face only upon Chile, giving bleſſings with both hands to this laſt, and leaving the other, as it were, diſinherited, and grieving at the pre-eminences of its elder brother. In going down to the eaſtward there are fewer fountains and rivers, and thoſe muddy, the face of the land melancholy, without ſo much as one green tree to recreate the ſight, nor any pleaſant verdure; and when at laſt there is ſome, as in the valley of Uſpallata, the heats begin to be ſo intolerable, that all things ſeem afflicting and unkind. On the other ſide, when we go to the weſt, it is quite contrary; for as ſoon as we begin to deſcend, we meet with lovely ſprings; the trees are green, the groves frequent and pleaſant, and the little valleys, which are like ſo many reſting-places in that great ſtair-caſe, where paſſengers take breath, and are refreſhed with the verdure and flowers of them, the air ſtill grows purer and purer; and the more they come down, the more they leave behind them all the inclemences of the climate of the other ſide, enjoying the advantages of the temperate Chile; for from the very foot of the mountains one feels the mildneſs of the ſea-air, and one is rejoiced with the harmony of the birds, and other delightful objects, ſo as to forget the trouble and danger of the way one has paſſed.

There is the ſame difference in the very land at the foot of the mountains; for on the eaſt ſide there are a few fountains; the land is barren, and little cultivated; neither are there flocks of any kind either fed or bred, ſo that the fields look like a uſeleſs barren ground, except it be that the thinneſs of the people has not as yet given way to try the fertility of the earth; for the plains below theſe are extremely fertile, where they are cultivated; but at preſent there is nothing but thorns and barren dryneſs in thoſe parts.

It is not ſo to the weſt, where fountains break out continually, which in the winter are temperate, and in the ſummer as cold as ice, and that ſo much the more as the weather grows hotter and hotter. Theſe ſprings do ſo fertilize the fields at the foot of the mountains, that they keep the earth freſh and green all the year, though it be but a patch; for moſt of the ground is woody, and there is ſuch a variety of wild trees, that one would think they were arbors and groves planted by the hand of man: many of theſe are loaded with fruits of the country, of which the Indians make excellent drinks, and ſome of them are very good to eat. The valleys are full of odoriferous beautiful flowers, brought forth by nature, without any human induſtry: there are alſo among them moſt extraordinary phyſical plants of a beautiful aſpect. The little hills and plains afford excellent paſture for all ſorts of cattle and flocks: there are alſo admirable valleys for planting of olives and almond-trees, and all ſorts of fruit-trees. At the lower part, about a league in the plain, there are vineyards, of which are made excellent wines, particularly moſcatells, which are in great eſteem.

There are likewiſe in this deſcent of the mountain, admirable paſtures, where great flocks are bred, and do increaſe wonderfully; their fleſh is extremely ſavory, and the milk of the goats is ſo fat, that by only boiling and ſtirring it gently over the fire, I have ſeen it grow as thick as if flower had been put into it; and yet in other parts this milk is of its nature very thin. This may be ſaid particularly of the young ſhe-goats; and the milk thus boiled has a ſweetneſs and delicacy which paſſes ordinary milk

eve

even with the things that are put in to mend it; all which are arguments of the great ſubſtance and nouriſhment of that land.

CHAP. XI. — *Of the Effects produced by the great Snow of the Cordillera.*

WITH the firſt rains of the winter, which are about the middle of May, the Cordillera begins to be covered with ſnow, and to put on, as it were, a white armour, to hinder its being paſſed, not only by men, but even by animals and birds, which are ſo driven out of it by the rigour of that ſeaſon, that there is not one remaining in it.

Even the Silguerillos, and Sorſales, birds which of their own nature are ſo hot, that in the very beginning of the ſummer they take to the mountain, as ſoon as they perceive that the winter draws near, come in flocks down to avoid its rigour in the mountains; and then it is that the taking of them is eaſy, and that as ſoon as the cold pinches, the ground being almoſt covered with them, it proves the ſeaſon of moſt pleaſure for the youth of the country, who going out, take ſo many of them, either with glue or nets, that they carry loads of them home, reſerving thoſe of the fineſt colours to put in cages, for their harmony is very ſweet. The Cordillera is ſhut up five or ſix months in the year; ſo that till October or November, it cannot be paſſed without manifeſt danger of one's life; and in the midſt of winter not at all, becauſe all the paths and ways are covered with ſnow to the height of many yards; and if any one ſhould be raſh enough to attempt it, he would, after a little going, ſink in every where, ſo that he would not be able to go a ſtep forward or backward, as has happened to ſeveral, who either for ſome very preſſing concern and intereſt, or flying from a death which threatened them for their crimes, have found it in theſe deſarts more certainly than perhaps they would have done in the priſons where they feared it.

Theſe are buried, not in ſepulchres whitened on the outſide, nor under cold marble, but in the very boſom of froſt and ſnow, which preſerves them without being embalmed, and yet keeps them as incorruptible and dry, for ſo they have been found after many years; for ſuch is the cold of thoſe mountains, that it dries up all the moiſture that can cauſe corruption in dead bodies, and ſo preſerves them.

This ſo inſuperable difficulty of paſſing the Cordillera, is leſs at the entrance, than the end of the winter, becauſe the drifts of ſnow are not then ſo violent as to ſhut up the ways entirely; for in thoſe ſeaſons ſome do venture to paſs, though never but with great danger, and upon urgent occaſions; if ſometimes they are ſo lucky as to get off well, becauſe they meet with a clear ſky, yet at other times it coſts them dear; and it is always with infinite labour that they get through.

I have ſeen others who eſcaped with their lives by God's mercy, becauſe the ſtorm catched them before they were too far engaged in the mountain, and ſo they could yet make a retreat to the low countries; others have been forced to open their mule's bellies that they ride on, and hide themſelves in them; and by that warmth, and other defence of clothes, they make a ſhift to get over the ſtorm of ſnow, if it does not laſt long; after which they gain the plains on foot, if they are not too far engaged, and ſo avoid the danger, but not the long-ſufferings which follow generally after ſuch adventures.

In ſhort, every body has ſome ſtory to tell of the mountain, and complain of it; for ſome loſe their toes, others their fingers; and ſome their ſight; ſome are benumbed and lamed, and ſo remain all their life with great infirmities. And I do not wonder at all

all this, becauſe though one ſhould paſs without a ſtorm, yet the cold is ſo terrible, that it cannot but injure nature extremely in that ſeaſon, ſince even in the midſt of ſummer, when we paſs this mountain, and in the lower part of it ſweat with heat, as ſoon as we come to paſs the top, we are forced to put on double cloathing, and prepare the ſtomach with good warm things, to withſtand the ſharpneſs of the cold, and the ſubtileneſs of the air, which penetrates the body through and through, if it be not well covered.

Among the ſeveral times that I have paſſed this mountain, one was in the beginning of April, when autumn in thoſe parts is at an end, and the winter begins to threaten, and I muſt own, that the cold was ſo intenſe, that it ſeemed a different ſpecies of cold from all thoſe I ever felt either in India or Europe; though even then it had not begun to ſnow, the cold was ſo fierce that it made one's hands cleave; nay, it had an effect upon the very rocks, for I remember the ſun was reflected by them as by a looking-glaſs. When we come to treat of the firſt diſcovery of this kingdom, I ſhall relate what was endured by the Adelantado Don Diego de Almagro with his army, and by thoſe who afterwards followed him, and paſſed this mountain, in which they were ſo ill-handled, that ſome were ſtruck blind, others lame; ſome loſt their fingers without feeling it, becauſe the exceſſive cold took away all ſenſe; ſome were frozen to death, and with them ſome horſes, whom ſix months after ſome other Spaniards found ſo freſh and well preſerved, that they eat of them; and to ſecure themſelves from cold, made a defence of thoſe dead bodies; nay, ſome got into them. About ſix years after, others going that way, found a Negro, who at that time was frozen to death, leaning againſt the ſide of a rock, with a led horſe, and the reins in his hand, though conſumed with time. They who have a mind to know more particulars, let them read Don Antonio de Herrera, Decade 5. Book 10. Chap. 5. and alſo Gareilaſſo de la Vega, in his firſt tome.

It is neceſſary to underſtand, that it is of this cold of the mountain that authors ſpeak, when they ſay, that the cold of Chile is ſo ſevere, that the rivers are frozen up, and men frozen to death in the fields; for this is only true of thoſe uninhabitable mountains, where I believe at that ſeaſon the rivers do not run, but are turned into chryſtal; and if any ſprings do eſcape, they are very few, and that in the valleys moſt ſecured and ſheltered; that appears by the rivers which run in the plain country, which are almoſt dried up, in compariſon of the quantity of water that they carry with them in the ſummer.

And thus the truth of what hiſtorians relate may be ſaved from contradiction; for they not knowing the country, make no diſtinction between the mountain and the plains, in which there never was ſeen any ſuch effect of cold in any part of them; for the ſea air, which is thick and moiſt, tempers the ſharpneſs of the blaſts from the Cordillera; and for this reaſon it is, that the colds of Pampas of Cuyo and Tucuman are ſo inſupportable; as alſo thoſe of Buenos Ayres, which being at ſuch a diſtance from both ſeas, and not enjoying the warmth of its vapours, the air in ſummer is intolerably ſcorching, and in the winter ſo cold, and for want of rain ſo dry, that it is common for animals to be found dead in the fields, as well as the men too ſometimes.

CHAP. XII. — *Of the Fountains which riſe in other Parts of Chile, beſides the Cordillera.*

BESIDES the rivers and ſprings of the Cordillera, there are others which run through the plains and valleys, which have admirable properties. I ſhall mention ſome, for it is impoſſible to rehearſe them all, nor can I remember but a few. Firſt, that which riſes at the foot of the high volcano of Villa Rica, ſo famous in that kingdom for its terrible effects, for which God Almighty makes himſelf to be feared and reſpected by mankind; riſes, I ſay, at the foot of this mount with ſuch force, that it ſprings out of the earth in two ſources, each as big as a man, and ſufficient to form alone a good ſtream, and runs into a lake which is made by its waters.

In another lake, out of which comes the river called Rio Chico, there riſes alſo a fountain of hot water, moſt efficacious for the cure of leproſies, and all contagious infirmities. There is another ſprings up in the Maguey, yet moſt admirable; for there are two ſources juſt by one another, the one of hot, the other of cold water; the hot one is ſo hot, that no one can endure his hand in it; the cold one is let in to temper the bath which is made for the ſick. The baths of Rancagua are alſo very famous, and like theſe; which, for being near St. Jago, and in the greateſt intercouſe of the kingdom, are very uſeful, and much frequented. There are others in other parts; but not remembering them diſtinctly, I can ſay little of them. Among the fountains, that of Ramon is very famous, as well for the goodneſs, as abundance of its waters; which is ſuch, that they alone are ſufficient to water many fields: it is about two leagues eaſtward of St. Jago, and in that diſtrict. There are many others, among which, that of Caren is worth taking notice of: it ſprings in a beautiful meadow, of about five or ſix leagues in length, affording a delicious proſpect; its water is very ſweet, and enters into the meadow; the earth of which is ſo porous, that whoever treads hard upon it, feels it ſhake under him: it is all the year green; and the graſs is a kind of ſmall trefoil, called by the inhabitants Caren, and is pleaſant to eat. Neither ought I to paſs over in ſilence another fountain between theſe two, very plentifully furniſhed with delicate ſweet water, which is always ſo much the cooler, as the weather is hotter; it is called the fountain of Mayten, by reaſon of a tree of that name, which grows at the foot of a great ſquare table of live rock, where people uſe to go and eat their collations, the tree ſheltering them all the while from the heat; for it is a tree whoſe leaves are green all the year, ſomething like a myrtle, but much larger, and without diſpute of a more beautiful green: by its foot runs this fountain, whoſe ſource is a little higher in a valley, from whence it comes murmuring upon pebble ſtones, and among pleaſant groves full of beautiful herbs and flowers.

The trees, though wild, yet bear very ſavoury fruits of that ſoil; and in them are great variety of birds, who, with their harmony and ſweet notes, make the entertainment more delightful for thoſe that frequent the place. It is not the leaſt part of their enjoyment, to diſcover at the end of theſe woods a proſpect for many leagues over plains, which being of ſo great extent, many of them lie uncultivated; ſo that among the vineyards and plowed lands, the wild uncultivated part is ſo beautiful, particularly in the ſpring, that one would think art had helped nature. There are in one place great ſpots of yellow flowers, which cover the earth, ſo that for a great ſpace nothing elſe is to be ſeen; then you have white, blue, fillemot ſpots of the ſame proportion; the green meadows mingle in this with the waters of the river Mapocho, which is ſeen from this diſtance ſometimes entire in its bed, then divided into ſeveral

arms, and at laſt drained into the fields of the neighbouring grounds, to fertilize them. The proſpect is terminated with ſeveral farms, which are called Chacras, with their churches; and in the midſt of all, the city of St. Jago, the capital of Chile, which being not above two leagues off, and the heavens ſo ſerene, the towers of it are eaſily diſtinguiſhed, and the bells heard ſometimes.

This diſtrict is full of a many more ſprings, all within the compaſs of a mile of each other; and their waters are excellent and healthy.

That which is to the north of the city of St. Jago, called Conchalli, is likewiſe highly commended; it ſprings in a little valley, called the Salto, or Leap, becauſe of the fall of the river Mapocho. This river comes running in a plain to a certain place; where being divided (for it is the work of induſtry) into two branches, the greateſt of which runs in its natural channel, the leſſer is derived to water this valley; which towards the weſt is even; but towards the eaſt the land is ſo high, through which the river runs, that it is two or three miles from the bottom of the valley to the high grounds, from whence the river falls. It is precipitated with great noiſe, making lovely and various caſcades by the rencounter of the rocks and other obſtacles, which by their ſtrait paſſages retard its courſe, till at laſt it comes entire to the valley, and is divided into cuts and channels for the watering it; which is not ungrateful, to make a more than ordinary return to thoſe who cultivate it, not only in corn, moſt excellent wine, and moſt ſavoury fruits of all kinds, but alſo it ripens them above a month before any other place thereabouts; and it is very remarkable, that in this valley, which is only half a league from the city of St. Jago, the figs uſe to be ripe in it, when in the gardens of the city, and all its neighbourhood, they ſcarce begin to change colour: therefore, as well for this as for the game it affords, of partridges on the hills, and wild fowl in the waters and ponds of it, it is the greateſt entertainment all thoſe parts afford.

I ſhall not dilate upon more of theſe fountains, which are ſo frequent; for if I were to mention them all, I ſhould never have done; for ſince thoſe alone of the Conception, Arauco, and the country of the limits upon the warlike Indians, would require a large treatiſe, beſides thoſe of the diſtrict of St. Jago, what would it be then in the territories of the ancient cities, which are yet farther in the country? for it abounding extremely in rivers, it is to be preſumed that it muſt be ſo in fountains and ſprings; all which proceeds from the abundance of moiſture of the Cordillera.

Of theſe ſprings, the moſt agreeable for their good waters are the fartheſt off from the Cordillera, becauſe they are more purified by a long motion, and refined by the good qualities of the earth they run through, particularly the mineral impregnations are ſingular: I cannot but mention one, which is in the novitiate of the company of the Jeſuits of Bucalemo, whoſe waters are not to be matched, at leaſt I never met with the like; for without drinking them, one may diſcover by the touch their nobleneſs, their ſoftneſs being like that of new butter; and they do make the hands that are waſhed in them in a few days ſmooth, and thereby prove their vaſt difference from other waters.

This fountain ſprings in a little valley, very pleaſant, under ſome hills, about a league from the ſea; and it bubbles up between a white ſand, in which there is gold, as if it had a fire under it to make it boil. It is wonderful to obſerve, that if they throw any bough or flowers upon it, it ſeems to take it ill, and never is at reſt till it has ſwallowed it up, leaping up againſt it ſeveral times, till it has made it his own, and hid it from our ſight; and this it will do for a whole evening, if they continue throwing flowers or branches of trees into it, without any body's being able to tell what becomes of them all.

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The effects that this water cauſes in the ſtomach are admirable: it helps to digeſt the meat with more eaſineſs; it deſtroy scrudities, diſſolves phlegms and groſs humours, and evidently prolongs life, eſpecially to old men. This was moſt particularly made clear in the perſon of the famous Captain Sebaſtian Garcia Caretto Chumazero, the founder of that novitiate, who lived there many years, and came to be ninety years old in good health, and ſo vigorous, that he did to the laſt go on horſeback through the woods and mountains, as if he had been a young man. I heard him ſay many times, that this fountain was his life; for as ſoon as he found himſelf any ways out of order, he ſent immediately for the water of it, and drinking it freſh from the ſpring, he uſed to go to bed upon it; where falling aſleep, he would after ſome time awake well diſpoſed: this I have often been witneſs of. The old Indians thereabouts experienced the ſame, and did attribute their good ſtate of health to this ſpring, without uſing any other phyſick or remedies.

CHAP. XIII. — *Of the Lakes of Chile, and the Salt that is gathered from them.*

AFTER having treated of the fountains and rivers, it ſeems natural to treat of the lakes and ſtanding waters formed out of them, and by ſome inundations of the ſea in winter, when it fills them, and leaves them provided for all the ſummer. Thoſe made by rivers come firſt in rank; and I wiſh my memory would ſerve to place them here, with their ſeveral qualities. Omitting then to repeat what we have ſaid of thoſe of Aculco and Pudaguel, which being near St. Jago, make the greateſt diverſion of its inhabitants, we will begin with the lake of Tagataguas, about fourteen leagues from that city, and which once was more in eſteem; for the trouts catched there are of a large ſize, and the game for wild fowl ſo much more diverting, that there is no compariſon between theſe waters and others. I do not deſcribe here particularly the variety of wild fowl, becauſe I intend to do it when I treat of the variety of birds of this country. The lakes of Villa Rica are of great renown, though I confeſs I know little of their properties.

The lake of Puren has been famous, having been an impregnable fortreſs for the warlike Indians our enemies, by reaſon of the diſpoſition and qualities of its ſituation; for from thence they have for many years maintained a war with whole armies of Spaniards, without being ſubdued: their advantage lay in this; that upon any rout given them by us, they had here a moſt certain and ſafe retreat, which, when once they had recovered, they were out of all danger; for none could hurt them either by ſword or fire.

The ſea lakes are alſo many, and of great profit to their owners; for the fiſheries in them are much more certain than in the ſea: for which reaſon they furniſh the beſt part of the lenten fare, though the ſea affords a great deal too. Among the reſt the lake of Rapel brings a great revenue: it runs in length above two leagues within the land. In the winter time the ſea is joined to it; for by its ſtorms it forces an entrance, but it leaves it full of all ſorts of fiſh; which, with thoſe that are bred there, furniſh it for the whole year, and enable it to ſupply all the neighbouring country; and that not only with fiſh, but with ſalt too in abundance; for, about January, the communication ceaſing between it and the ſea, when the ſun is at its hotteſt in that climate, the water is congealed ſo, that it has a cruſt of a foot or more thick of a moſt excellent white ſalt. This, indeed, does not happen every year; for it requires an extreme heat to do it, the lake being deep, and the climate there more inclining to cold: but they provide themſelves

themſelves in one, for many others; and the ſalt-pits made by hand ſeldom fail; for they not being of great extent, the water that is let into them turns to ſalt with leſs heat, the matter to be congealed being leſs in itſelf. And ſince we are mentioning ſalt, I cannot omit to relate what I myſelf have ſeen in the valley of Lampa, which is about three leagues from St. Jago; and it is this, there grows there an herb, not unlike to Sweet Baſil, only its green is upon an aſh-colour, and not ſo gay; it riſes about a foot above ground: this plant, in the ſummer, is covered over with ſmall grains of ſalt, like pearl, which is congealed upon its leaves, either from the dew of heaven, or by ſome vapour raiſed by the ſun from that earth; or elſe the nature of the herb itſelf is ſuch, as to ſweat out this humidity, which being afterwards congealed by the heat of the ſun, is turned into ſalt. Let the cauſe be what it will, the effect is ſeen no where but in this valley, and upon that ſpecies of herb; which is therefore much valued by the Indians, the ſalt of it being more ſavoury, and of a finer flavour than any other.

I cannot tell whether Johannes de Laet means this in his deſcription of the new world; for having mentioned the kingdom of Chile, to which he gives the preference for its excellent properties, he ſays, that in that kingdom, in ſome of its valleys, there falls, at certain times of the year, a dew ſo thick upon the leaves of the plants, that it is like ſugar, and ſerves, being kept ſome time, for the ſame uſe as manna. Antonio de Herrera reports the ſame thing, in his General Hiſtory of the Weſt-Indies; and, amongſt other commendations he gives this noble kingdom, he relates the ſame thing of this ſtrange and admirable dew. I ſay upon this, that I know not whether they allude to what I have reported of the valley of Lampa by my own ſight, and have no knowledge of that other thing they mention; though one would think, ſuch authors ſhould diſtinguiſh things ſo different in their effects and ſavour, as ſalt and ſugar. It is poſſible God may have done both, having been ſo wonderfully liberal to that country, where the ſingularities are ſo many and wonderful; and it would therefore be no wonder ſome of them ſhould not be known, eſpecially conſidering that we, who are there employed for the converſion of ſouls, have not time to ſearch after curioſities, and ſecrets of nature.

CHAP. XIV.—*Wherein is treated of the Sea of the Kingdom of Chile, and of the Etymology of its Name.*

THE fountains, ſprings, rivers and brooks, carry us along with them naturally to the ſea, where their courſe ends, and where there is room for my pen to exerciſe itſelf, if the brevity of this narration did not confine my flight: I muſt therefore be content to ſay ſomething of this element, that the nature of it may not be unknown as to this new world.

Beginning therefore with the etymology of its name: It is well known that all commonly call it the South-Sea, becauſe it is towards the antarctick pole, from whence generally the ſouth wind blows, in oppoſition to the Tramontano, or north, which reigns in the ocean as far as the arctick pole. But leaving theſe diſputes to the ſchools, or rather to that abyſs of Divine Wiſdom, *qui profert ventos de theſauris ſuis*, it is a known truth, that the effects which the wind of the arctick pole cauſes in its juriſdiction towards the oppoſite part, the ſame is cauſed by the ſouth wind in its motions from the antarctick towards theſe parts.

In Chile we look upon the ſouth wind as a favourable wind, as in Europe the north is in the ſame eſteem. The north with us covers the heavens with clouds, cauſes tempeſts

peſts and ſtorms at ſea, and makes all the land dark and ſad: the ſouth, on the contrary, clears the ſky, ſerenes the air, and makes the ſea as calm as milk: on the contrary, this ſame ſouth wind, in the north ſea, is ſtormy, and covers the heavens with clouds, and raiſes thoſe tempeſts, which do ſo endanger ſhips; whereas the north, called there Tramontano, clears all again, and makes the fine days.

From hence proceeds, that in America the ſouth wind reigns in ſummer, when the ſea is calm, and the north in winter, when it is tempeſtuous: the north does moſt certainly bring with it the rains, particularly from thirty-ſix degrees to the pole, and that ſo ſuddenly, that ſometimes, in the moment the wind comes to the north, the rain falls, and moſt commonly it is within half an hour after its change; and when in thoſe parts in winter the ſun is clear, and the weather fair, it is when the ſouth wind overpowers the north; for the ſouth in thoſe parts is cold and dry, and ſo drives away the clouds, ſo as it happens ſometimes that the heavens are dark; and as ſoon as the clouds are diſcharged, if the ſouth appears a little the ſtronger, it is an infallible ſign of calm weather, which generally follows in a trice; for this wind drives all the clouds ſo before it, that when it blows, it does not leave one in the ſky.

The contrary of this is ſeen in Europe, where the ſouth winds bring humidity, and the north drives it away: the ſouth relaxes the body, and affects the head; but the north ſtrengthens the body, purifies the air, and dries up ſuperfluous humours. In ſhort, theſe two winds cauſe quite different effects in Europe and America, that we may call the Europeans ſons of the north, and thoſe of South America children of the ſouth.

From this there follows another very notable and well-known difference, which is, that as to go from Europe to the Indies, the north is the proper wind, and carries us before it, and by conſequence is contrary to our return; ſo in the South-Sea, ſailing from the pole towards theſe parts, the ſouth is the favourable wind, and contrary to our return: from whence it proceeds, that the voyage from Spain to Carthagena being by the North-Sea, and made in thirty, forty, and fifty days, the return to Spain uſes to laſt fourſcore, and a hundred, and more days. On the contrary, in the South-Sea, where the voyage from Chile to Lima is but of about a fortnight, and as much more to Panama, or thereabouts, the return only to Lima is of two months, and from thence to Chile forty days. The South-Sea is alſo called the Pacifick-Sea, to diſtinguiſh it from the North-Sea, whoſe ſtorms and tempeſts are ſo frequent; whereas in the South-Sea they are rare: but, in my opinion the difference is for another reaſon, which I ſhall alledge here.

The moſt frequent navigations of the South-Sea are from Peru to Panama, and from thence to New Spain and the Philippinas; and thoſe from Peru to Chile are leſs uſed: by which it appears, that the beſt part of the South-Sea navigations are between the tropicks; and ſo the ſun has ſo much force, as to keep the winds from being furious, and making ſuch laſting ſtorms as thoſe which are raiſed without the tropicks, and in parts nearer the pole; for this reaſon the ſailors, in theſe w a climates, where there never is any winter, called this ſea the Pacifick-Sea, from the good effects they experienced in it. The contrary of this is in the North-Sea, where moſt of the navigations are out of the tropicks; where the ſun having leſs force, the winter predominates, and raiſes mighty ſtorms. Now the Europeans who firſt navigated the South-Sea, being ſuch as were uſed to thoſe dangers, to which the navigators of the northern parts are moſt commonly expoſed, when they found ſo quiet a ſea as that under the line, and in thoſe which particularly are the ſeat of commerce with New Spain, Panama, and Peru, they gave it the name of the Pacifick, without examining any further the cauſe of the difference

ference of the effects, which they experienced in both ſeas: but if they had tried that very South-Sea beyond the tropick of Capricorn, they would not ſo eaſily have named it Pacifick.

I know that this diſcourſe will be approved by thoſe who have had experience of the hardſhips which are ſuffered by the navigators, from the twenty-ſixth degree of latitude on the coaſt of Chile, to fifty-three degrees; for there, as ſoon as the winter begins, the ſea cannot be navigated without manifeſt danger, the ſtorms being no ways inferior to the greateſt in the North-Sea; and though at that ſeaſon it is not ſo dangerous for ſhips to ſail from Chile to Lima, becauſe they every day get into a leſs latitude, and ſo enjoy a quieter ſea, yet from Peru to Chile it is extremely dangerous, not only becauſe they come into a greater latitude, and go out further to ſea, to avoid the ſouth wind's oppoſition, but alſo becauſe the vapours of the ſea and cold miſts of the earth do raiſe ſuch fogs and dark clouds, that they cover the land ſo, that when they make their port, they are in great danger of ſplitting upon the rocks.

This, I ſay, is only of thoſe coaſts of Chile which are in the leaſt latitude; for from the city of the Conception, towards the pole, even in ſummer, they are dangerous; and the ſhips which are bound for the iſlands of Chiloe have not above two or three months in the year to go in and out conveniently, or they neither go in nor out till the year following: this is underſtood as far as forty-four or forty-five degrees, in which this archipelago of iſlands is placed; for from thence to the ſtraights of Magellan, thoſe may relate the dangers who have experienced them, and paſſed thoſe ſtraights: all that I know of it is, that they all have matter enough to diſcourſe of at their return.

So that we may ſay, that the name of Pacifick does not abſolutely belong to the South-Sea, according to its whole extent, but only as to thoſe parts of the greateſt intercourſe, which, becauſe they are within the tropicks, are the freeſt from ſtorms; and yet it cannot be denied, but that the South-Sea has an advantage over the North-Sea, even within the tropicks, which is, that it is free from thoſe great ſands which are ſo common in the North-Sea, about Carthagena, La Havana, and other iſlands, nay, even in the canal of Bahama; which indeed are ſo many, that let a ſtorm be but moderate, they make it ſtill greater, and more dangerous, by ſhortening the ſea-room, and force the ſailors to be always heaving the lead, or elſe to ſplit upon the rocks, which may be clearly ſeen and diſtinguiſhed from the ſhip's ſide.

I find likewiſe, that the South-Sea may be called Pacifick for another reaſon, which is, becauſe of the extreme quiet it enjoys in its navigation, without diſturbance from any of its enemies, who are ſo frequent on all ſhores of the North-Sea; for there being no other entrance into the South-Sea, but by the ſtraights of Magellan and St. Vincent, which are at ſuch diſtance, and defended by nature itſelf, the enemies of our quiet do not care to engage in ſo uſeleſs and dangerous a deſign, with ſo manifeſt a deſtruction, and ſo little advantage, as hath happened already to ſome hereticks who have attempted it; for having no ſettlement, nor landing-place in all that vaſt ſea, they have been forced to ſail to the Philippinas: therefore the ſhips of the South-Sea are free from any fear of enemies, and go and come without any apprehenſion of danger on that ſide. Antonio de Herrera, in the fifth decade of his General Hiſtory, fol. 319, relates the motive that Magellan had to call this the Pacifick Sea, and that is, becauſe there is not in all that element a more ſpacious career for the winds and tides; and becauſe there reigns between the tropicks ſo ſteady and ſtrong a levant, that in many days the ſeamen need not hand their ſails, nor the ſteerſman his helm, ſailing through thoſe vaſt ſeas as if it were in a canal or river. And the ſame author adds, that this motion of this

wind

wind proceeds from the courſe of the firſt Mobile, which is proved by its perpetual invariability, and the increaſe of its vehemence, as it draws nearer the equinox. Some diſpute, whether it ought to be called a wind, or an impulſe which the air receives from ſuperior orbs, communicated to them by the firſt ſphere. So far this author.

CHAP. XV. — *Of the Sea-coaſts of Chile, and its Ports and Havens.*

IT would be too great an excurſion beyond my purpoſe, to mention all the ports and creeks along the coaſt of Chile; for they are very numerous. George Spilberg, admiral of a fleet of ſix ſail, whoſe names were, the New Sun, the New Moon, the Hunter, the Pole-ſtar, Eolus, and Lucifer, ſays, he obſerved twenty-five ports in the ſtraights of Magellan alone, before he entered the South-Sea: he commends them mightily, but particularly he is much pleaſed with the twenty-fifth; for he ſtaid in it ſome time, and gave it his own name: he calls it a noble port, by reaſon of its ſafeneſs for ſhipping, as alſo for the pleaſantneſs of the fields, which, he ſays, were all covered with fruit; which, I ſuppoſe, were ſtrawberries, according to the deſcription he makes of them. He found there likewiſe abundance of excellent oyſters, at the mouth of a river, which beautified that port extremely, it falling into it from high mountains. But this retreat did not ſerve them long; for having ſeen ſome very fine coloured birds, they purſued them on ſhore, and hunted them; which they had no ſooner begun to do, but they were aſſaulted by a troop of Indians, with clubs in their hands, and ſome of them were killed, and the reſt forced to retire to their ſhips, and ſet ſail in haſte; which is a great mark of the valour with which thoſe people engaged them; for though they had fire-arms, they could not withſtand the charge.

The moſt famous port in all the coaſt, beſides that of Valdivia, which we have deſcribed already, is that of Coquimbo, mentioned in our ſeventh chapter; and it deſerves all ſort of commendation, as well for its lovely bay, where ſhips ride as ſafe as can be, as alſo for the pleaſantneſs of the country about it; which is one of the moſt delicious of all Chile. The products of the country are particularly gold and copper, which is carried from thence to Peru; for the making of artillery, caſting of bells, and other houſehold furniture.

The ports alſo of Copiapo and Guaſco are eſteemed, and more deſervedly that of Pacudo, which is a private hidden bay, where the ſhips of Peru come to load with the hides and tallow of Chuapa; as alſo with tar and tackling for ſhips, which is made in that valley, and is whiter and better than any in Chile, by reaſon of the excellent waters they make uſe of in its making.

The next good port to theſe, is that of Quintero, where the general of the ſix ſhips above-named landed; and it being a place uninhabited, met with no oppoſition, but refreſhed his men with a large fiſhing which they made. They do ſo commend the place, that they cannot ſufficiently (they ſay) extol the pleaſantneſs of the land, the ſweetneſs of the water, the ſecurity for ſhips, and, in ſhort, all ſorts of conveniencies for human life; and after theſe many encomiums, the hiſtorian concludes thus, *portus hic nulli ſecundus*, this port yields to none; and yet this port of Quintero is none of the famous ones of Chile; by which it may be inferred, that he was but little acquainted with the reſt. He could not land in them; for he found them all guarded by the militia, who expected him; and though coming to Val Paraiſo, he had begun to land ſome men, yet, upon advice that the horſe of St. Jago were at hand to hinder the deſcent, he took them on board again; and, ſailing at midnight, caſt anchor at Quintero, where they watered, and cut wood, the admiral himſelf landing with many ſoldiers

ſoldiers to protect his men: there they drew up a trench, with a kind of half-moon, to ſecure their retreat againſt the Spaniards, who began to appear upon the hills; but they did not ſtay for them, but embarking again, followed their courſe towards Peru, not landing any where elſe; but they commend the land extremely.

After theſe follows the port of Coucon, or Quillota, which ſerves to embark the product of thoſe valleys; and hard by that, the port of Val Paraiſo, where are landed all the goods brought for the city of St. Jago: from whence they are diſtributed all over its territory, and as far as Cuyo, and Tucuman: this port is every day more and more inhabited; and there is building a convent of Auſtin friars, which will be of great relief to the ſouls of the inhabitants, and of all thoſe who go and come, who are not a few; for this is the port of the greateſt commerce with Peru: it is diſtant from St. Jago twenty-four leagues, all plain and good way, fit for carriage; and ſo all the commodities of both kingdoms are conveyed and exchanged by it.

Near the port of Val Paraiſo is that of St. Antonio, which is alſo very ſafe and good, and is at the mouth of the river Maypo. There is a miſtake in authors about this; for they place the port of Val Paraiſo at the mouth of a river, which they make in their maps to come from St. Jago; which is a very great error, becauſe at Val Paraiſo there is no river of any note, but only ſprings and fountains, which riſe out of the rocks cloſe by the ſea, which are moſt excellent waters. There are alſo others of a coarſer nature, with which the ſhips fill their proviſion, becauſe they having more body, they reſiſt better at ſea againſt corruption.

There are ſeveral other ports between that and the Conception, in the bays and mouths of rivers; but not much uſed, becauſe they are not neceſſary; all thoſe valleys from Maule to Quillota ſending their commodities to Val Paraiſo. I believe, in time, other ports will be employed, becauſe the products of that kingdom multiply apace, and ſo people will be willing to ſeek out the neareſt ports for embarking their goods. All the product from Maule upwards, is carried to the harbour of the Conception, which is the beſt bay in all thoſe coaſts; and it being a very large one, Providence placed at its entrance the iſland of Quiriquina; under which, as under a mole, ſhips are ſecured in foul weather. At the largeſt entrance of this bay is the port of La Herradura, or Horſe-ſhoe, it being in that form; and oppoſite to that is that of St. Vincent; and a little farther, that of Carnero, called ſo for the refreſhment it afforded to one of the ſhips of the biſhop of Palencia, who, by order of Charles V., paſſed the ſtraights of Magellan with ſix ſail, and having loſt their Patache, were forced to the Moluccas.

Next to theſe are the ports of Tirva and Quedal, La Baia Chica, that of Puralla, the port of St. Cebrian, that of Sancta Clara, that of St. Domingo, St. Eſteran, Los Reyes, that Baixas, that of the Innocents, and many others leſs conſiderable, as far as the ſtraights of Magellan.

Beſides theſe ports which we have marked upon the Terra Firma, there are ſeveral others, well known in the iſlands of Juan Fernandes, La Mocha, Sancta Maria, in the iſlands of Chiloe, Alſie, where the moſt frequented are that of Carlemapo, and that called the Engliſh Port, becauſe formerly an Engliſh ſhip landed there, and the men and ſhip, with all its artillery, were made prize. There are alſo ſeveral other ports in the Archipelago of Chiloe, which I forbear mentioning, becauſe I have not a perfect account of them.

CHAP.

CHAP. XVI. — *Of the Fertility of the whole Coaſt of Chile.*

THE abundance and fertility of this kingdom is not only perceived in its valleys and fields, but likewiſe in its whole coaſt, even on the rocks, where the ſea beats. It will be hard to make this appear by particulars, becauſe, though in other parts of the world the rocks produce ſhell-fiſh, yet I do not know that it is in ſuch quantity, nor ſo large any where as in Chile, nor of ſo many different ſpecies. Firſt, I will ſpeak of that which is moſt common and intelligible: there grows along the coaſt every where an herb not unlike to endive; they call it Luche, which they pull from the rocks: it is gathered in the ſpring, when it is moſt grown; and being dried in the ſun, it is made into loaves, which are looked upon as a great delicacy far from the ſea, particularly in Peru, Cuyo, and Tucuman; for it ſerves for many ſauces. It grows upon the tops of rocks, ſuch as are above the water. At the foot of the rocks are found certain roots, which bring forth a trunk as thick as one's wriſt, called Ultecueſte: this they cut, and laying it before the fire, they pare it like a lettuce, or cardoon, or thiſtle, but it has a much different taſte. From theſe, the trunks ſhoot out certain long cords, of three or four yards long, and ſome of about ſix or eight fingers in breadth: theſe they call Coehauyo; and there are two ſorts of them, which, though they reſemble one another, yet the Indians make a great difference between them, reſerving the good, which they cut and dry, and make proviſion of them for Lent; the others they leave to the ſea, which heaps them up upon the ſhore, where they lie in heaps very uſeleſs. So much for the herbs. Now let us ſpeak of the ſea ſhell-fiſh. The beſt of this kind are oyſters, both great and ſmall, ſo much talked of by the Hollanders with great commendations: they found them in the ſtraights of Magellan; but the greateſt plenty of them is on the coaſt of Coquimbo, where they are very large and delicious; the leſſer ſort they call Tacas, very much valued too, and taken all along that coaſt. But thoſe of greateſt renown are the oyſters of Chuapa; in the great ones are bred pearls, as the Dutch ſay, and, according to John and Theodore de Brye, they bought ſome of the Indians in the ſtraights very finely wrought.

That which they call Choros is alſo a fine ſort of ſhell-fiſh, and in its ſhell, as Antonio de Herrera ſays, there are pearl very white. That ſort which I have ſeen is not ſo big; but ſince they are to be found every where, there may be of all ſorts of them; for they are caught in abundance, both little, middle ſize, and large ones, ſome as broad as my hand. The choiceſt of them are thoſe which have the fiſh of a yellow colour, though the black ones are good too.

There is another ſhell-fiſh, called Manegues, which is in two round ſhells, ſuch as ſerve for models in architecture; the fiſh within is but coarſe meat, but of good ſuſtenance. In one kind of theſe, which is the little ſort, in opening the ſhell, which in the inſide is like mother of pearl, when one takes out the meat, one may ſee the impreſſion on the ſhell, of a purple colour, which repreſents the image of the moſt holy virgin, with her mantle, and her child in her arms, which cauſes great devotion and comfort; and, though they all have this impreſſion, yet ſome have it ſo perfect, that it is wonderful.

A fiſh they call Locos may alſo be ranked among the ſhell-fiſh: they call them alſo Aſs's Hoof, becauſe they are of that ſhape: they are very ſavoury, but hard and indigeſt; for which reaſon they are to be eaten ſparingly, though in the dreſſing of them they macerate them between two ſtones, to ſoften them. I ſhould never have done, to go through all the kinds of ſhell-fiſh; as likewiſe of ſnails, which are alſo good

good to eat, and are produced on the rocks. There are ſome caſt up by the ſea, in ſuch quantity, that ſhip-loads may be had of them, of ſuch variety of figures and colours, that I doubt not but the curious in Europe would value them, and our artiſts would make curioſities of them; but they, for want of ſuch artificers, are good for nothing in the Indies, but to make chalk of, by burning them in a furnace; yet they are in ſuch vaſt quantities, that the ſhore is covered with them, and they make a fine ſhew.

The ſhell-fiſh called Picos de Papagayos, are another kind much eſteemed: they are ſo called, becauſe for their ſhape and bigneſs they are juſt like parrots heads; and as theſe birds build their neſts on ſhore, in ſome hollow rocks and caves, ſo this fiſh breeds in a kind of ſtone-work, hollow, like little cells, where it grows till it comes to be of the bigneſs of thoſe heads. They dreſs them in thoſe very neſts, which ſerve for pots, and when they are enough, take them out. They are excellent meat.

Thoſe which they call Kericos, though common in other parts, yet I never ſaw them ſo large as in thoſe parts; and being taken in the increaſe of the moon, they have very large tongues, fat, and of about two fingers breadth.

The Crabs, Apavicoras, and Praunes, are likewiſe very good, and of ſeveral ſorts and ſizes. The Lobſters, and thoſe of that kind, are likewiſe much eſteemed; they breed under the rocks, and are fiſhed for, as all the reſt, not with nets, but only by the Indians going into the ſea up to their middle, and knocking them from the rocks with ſticks in their hands. So much for this kind of eatables. There are others which live a little more in the ſea, which are of a beautiful form; ſome they call ſea-ſtars; ſome the ſun; others the moon; becauſe they are of the form of thoſe planets, as they are commonly painted. Theſe may be eaten too; but they have one very ſingular property, which is, to cure the vice of drunkenneſs, being reduced to powder, and given in wine to drink; this is of ſo certain an effect, that thoſe, who before they took it had no greater delight than drinking of wine, did afterwards ſo abhor it, that they would not touch it, though they were hired. This is a healthy remedy, as well as ſure; and therefore uſed by the Negroes to avoid taking another; which, though as certain, is very dangerous; which is, drinking the ſweat of a horſe mingled with wine. They ſay, this puts thoſe who take it, in danger of loſing ſome of their ſenſes; though I knew one, who being exceedingly given to drunkenneſs, his wife gave him this remedy without his knowledge, and it did him no other hurt than to make him hate wine, ſo that he could not bear the ſmell of it; but, as I ſaid, the Negroes uſe the powder of the ſtar-fiſh; and though I have obſerved, that with ſome it is not ſo efficacious, but they long for wine again after a little while, yet it is but to repeat the remedy as ſoon as that ill inclination prevails again; and this is commonly ſo practiſed upon the Negroes, who are much given to that vice.

CHAP. XVII. — *Of the various Kinds of Fiſh which are fiſhed on the Coaſt of Chile.*

LET the whale appear firſt, ſince by its bigneſs it is a kind of king of the ſea; and if where the king is, the court is, we may give that title to the ſea of Chile, where there is ſuch ſtore of whales, that I know not any place where they abound more; and they are accompanied by ſuch a court of little fiſhes of all kinds, that thoſe who have navigated thoſe ſeas, cannot but mention it with admiration. Among the reſt, William Seerten, who came with a fleet through the ſtraights, ſays, that they met with ſo many whales near certain iſlands, that they were forced to ſail with great care and attention

to

to avoid them, they being ſo many, that they were almoſt always in the ſhip's way, and endangered the loſs of them, being ſo big that they looked like rocks: they are all along the coaſt of Copiapo and Guaſco, and are of no ſmall profit, by the amber-gris they caſt on ſhore. The journals of thoſe who have paſſed the ſtraights do mention much of this amber floating on the ſea, and therefore no doubt but a great deal of it is on ſhore; but it is loſt, for the Indians having no value for it, know it not; and it is but within theſe twelve years that the Araucana's minded it; by ſeeing ſome Spaniſh ſoldiers look for it, they did ſo too, and found a great deal, and very good, on the coaſt. Of the grey ſort, which is the beſt, they found great pieces of an aſh colour, with a nobler and more delicate ſmell; the ordinary ſorts are yellow and black, and it has a quicker, though not ſo ſweet a ſmell as the grey. I have heard the people of thoſe parts ſay commonly, that the difference is very accidental, and that it depends only upon being more or leſs prepared by the ſun-beams; and experience ſeems to confirm this thought; for I have obſerved that black does in time grow white, by being expoſed to the ſun in a box; but if it be laid open, ſo as both ſun and rain come upon it, the experiment will be more manifeſt; and as for the harſhneſs of the ſmell, it may be remedied by infuſions in roſe-water, expoſing it firſt to the dews for nine days, and then to the fire, by which means it grows perfect.

Though it is known that amber is a thing which the whales caſt from them, there is diverſity of opinion about the manner, becauſe ſome think that this noble product is formed at the bottom of the ſea, or upon ſome rocks; and that the whales eat it for food, and not being able to endure it in their ſtomachs, becauſe it is naturally extremely hot, they get to the ſhore to caſt it up; others ſay, that it is the whales' excrements. It is not my buſineſs to decide this diſpute. The other great advantage which the whales are of to the country, is the oil they afford after they are dead; and it is a great deal that one whale will yield; it ſerves for various uſes of life. We do not know that theſe fiſhes die of a violent death, becauſe their vaſt bulk defends them both from men, and all other animals, that may be their enemies; but yet being ſubject to pay the common debt of nature, when they find themſelves near death, they draw near the land, and are often caſt on ſhore by the ſea, which will not bear any corruption in its waters; and it is ſtrange to ſee how they are thrown up in great numbers on thoſe coaſts. The oil is made by the heat of the ſun, and when the weather has conſumed the fleſh, the ribs and other bones remain white; and the Indians make uſe of them for ſeats; much more conveniency and curioſity might be afforded by them to other workmen.

There is another ſort of fiſh which are found moſt on the coaſt of Coquimbo, which are not ſo big as whales, but yet are very large, and a good fiſh to eat, which are the tunny-fiſh, and the Albacoras, which the Indians kill with great dexterity; they go into the ſea a good way upon floats of ſeal-ſkins, well ſewed together, and blown up like a bladder; they carry with them a kind of trident with ſharp tongues; this is faſtened to a long, ſlender, but ſtrong rope; the Indian guides his float near the fiſh he chooſes, and then darts it with his trident; the tunny, as ſoon as wounded, goes out to ſea like lightning; the Indian gives him rope enough, and follows him the way that he runs, till the fiſh has ſpent itſelf by loſs of blood; and then the Indian draws his rope, and the fiſh with it, either dead or dying, and lays it on his float, and he returns to port with his prey rejoicing. There are many other ſorts of fiſhes; one of the moſt extraordinary is the flying-fiſh, which fly with wings, and follow a ſhip like birds. The lion-fiſh is alſo admirable: they are found in great quantities about the ſtraights of Magellan, near a port called Port Deſire: they are very good to eat, but very

very hard to take; for though they wound them with ſhot in many places, yet if they do not hit them in the head, or the ſtomach, they do not yield: they are as big as a colt, and have a lion's head, with a perfect mane; which the females of them have not, neither are they above half as big as the males, and have a thinner ſkin. Thoſe who have ſailed through the ſtraights, talk much of theſe ſea-lions, and do alſo mention many other ſorts of fiſhes which they took there, ſome of ſixteen feet long, very ſavoury and good to eat. Antonio de Herrera ſays, that there are fiſhes taken in Santa Maria, out of whoſe eyes they take a ſort of coarſe pearl, which have a gloſs like the true ones, and are worn by the women; and if, as they are ſoft, they were a little hard, they would be better than pearls.

The ſea-wolves or ſeals, which are found on all the coaſts, are innumerable. I have ſeen whole rocks covered with them, and they lay even upon one another, ſo as ſome of them rolled down into the ſea again, there not being room for ſo many: they are as big as calves, and make a noiſe like them.

Antonio de Herrera, in the voyage of Magellan, ſays, that in the river of the Croſs, in the Straights, they took one ſo large, that without his head, ſkin and fat, he weighed nineteen Caſtillan Arrobas. The Indians take them for their ſkins, which are very hard and ſtrong, and ſome eat their fleſh. As to the plenty of the ordinary fiſh of thoſe ſeas, the authors already cited ſpeak very advantageouſly of their kinds, particularly William Scowten, who coming with his fleet to the iſland of Juan Fernandes, in thirty-three degrees and forty-eight minutes, the quantity of fiſh they met with was ſo great, that in a very little time they catched a great quantity of Robalos, which is the beſt and moſt wholeſome fiſh of all thoſe parts. They did not take them with nets, becauſe they had not time to land, but with hooks at ſea, by the ſhip's ſide, and that as faſt as they could throw in and pull up.

What I myſelf have ſeen, is in the great lake of Rapel, all the ſides of it covered with Pejereges, by the vaſt quantity of them which came upon the coaſt, as the droves of pilchards by the bay of Conception, and in Chiloe, ſo that they take them with blankets. I have ſeen the ſame droves of tunny-fiſh, which come leaping over one another's backs, as if there were not room for them; and indeed, that climate being ſo favourable to multiplication in all animals on ſhore, as ſhall be ſhewed in its proper place, it cannot well be otherwiſe as to the fiſhes.

CHAP. XVIII. — *Of the Birds of Chile.*

THE birds and fiſhes ſeem to be brothers of the ſame Venter, the Author of nature having created them both out of the element of water; and therefore, to diſpatch all the creatures of this country, having treated of the firſt, it ſeems that the chain of an orderly narration obliges us to ſay ſomething of the others. To ſpeak generally, it may be truly ſaid of the air of that hemiſphere, that it has a great advantage over the earth, though ſo fertile, ſo rich, and ſo delicious, as we have repreſented it; for though it is true, that it now produces the animals and fruits of Europe, with ſuch an increaſe as is wonderful, yet it cannot be denied, that before the Spaniards carried thither the ſeeds and animals which are now ſo multiplied, (for they had them not in any ſort, though perhaps others which ſupplied the want of them,) the air, without being at all enriched by the acceſſion of foreigners, has maintained always ſuch an abundance of the volatile kind, that it needed no ſupplies from Europe, but rather has many to make up any one defect.

To

To begin with the king of them all, the eagle: there are there abundance of them; thoſe which are called royal or imperial have been ſeen here only twice; firſt, when the Spaniards firſt entered that kingdom; and the ſecond time in the year 1640, when the Araucanos ſubmitted their untamed necks to their God and the king; they interpreting this as one of the ſigns of God Almighty's will to incline them to take that reſolution which they then took. As for the ordinary eagles, which do not differ much from the others, they have always been and are ſtill in the country very common. There are likewiſe bred falcons, ſo large and ſtrong, that for their beauty they have been carried from thence, though ſo far, as a preſent to the king of Spain; and they are commonly carried to Peru, particularly that kind which are called Primas, or firſt, though thoſe called ſecond are very large too. There are beſides, all other birds of rapine and prey; and of the ſinging birds, there are linnets, bull-finches, nightingales, blackbirds, and many others, who form ſome a baſs, and ſome a tenor, with all the other parts of harmony, beyond belief, particularly in ſummer under the ſhades of trees.

The birds for game are herons, partridges, wild pigeons, thruſhes, turtles, parrots, wild ducks of a thouſand ſorts, ſome of one colour, and ſome of another, and all very good. The domeſtic tame fowls are hens, ducks, geeſe, turkeys; and that nothing may be wanting, ſwallows in ſummer, which go away in winter, as they do in Europe, to warmer climates; ſcreech-owls, and other night-birds; as alſo bats.

Theſe are the birds of the European kind, which are found in thoſe parts, as well as I can remember; and there is hardly a bird here in Europe, that I obſerve in the fields, that I have not obſerved the like ſomewhere in Chile, with very little difference.

Who now can deſcribe the variety of native birds of that climate? which are in ſuch variety and abundance, that people are fain to guard their vineyards from them as ſoon as the grapes begin to ripen; and yet it is impoſſible to hinder them from doing a great deal of miſchief, they being ſo nimble, and having ſo ſecure a retreat, though all ſorts of inventions, ſuch as guns, croſs-bows, ſlings, ſcare-crows, are put in uſe; ſo that if any are negligent, they may be ſure to find their vintage made to their hand. And this miſchief is not only for their vineyards, but likewiſe for all ſeeds, which is fain to be watched after it is ſowed, till it ſprouts; and as ſoon as the wheat and maize begin to ripen, the guards muſt be renewed; for there comes whole armies of birds to attack them, and do them as much miſchief as if they were Xerxes' armies.

In particular the parrots are ſo voracious and greedy, and have a bill that cuts like a razor: they come in flocks of ſuch an extent, that when they riſe they cover the air, and fill it with ſuch a confuſion of cries, that I cannot find any thing to compare it to. This kind of birds is bred all over Chile, in the mountains and in the Cordillera; and it is wonderful to ſee how exactly they come to an hour, as if they were called by a bell; or had ſome notice where and when the fruits were ripe, and in ſeaſon for them to enjoy them: they come down from the mountains in the evening; and the noiſe which they make in flying, though they fly high, is ſuch, that one would think them cloſe by: they have a ſhrill clear voice, and they fly all ſcreaming at once, ſo that their noiſe is very loud: they are all green and yellow, and have a blue circle about their neck, and very good to eat, particularly the young ones.

Thoſe years which are to prove rainy, as the natives obſerve, as ſoon as the weather grows cool, before the winter begins, one may ſee every evening, for many days, great quantities of crows come down from the Cordillera into the plains: they come about an hour before ſun-ſet in ſquadrons, forming a triangle or pyramid, the point of which is led by one ſingle one, before whom none dare go: the figure they make

make is moſt regular, with great correſpondency to each other, as if they were fixed in the air, and immoveable, ſo equal and well-concerted is their flight.

There is likewiſe a bird which we call Taltales, or Galinaſos; it is like a duck, but has bigger wings; they are either black or brown, and very voracious of carrion. In the time of ſlaughtering, which is every year in Chile of moſt beaſts, there is a great deal of fleſh loſt; then theſe birds come, as if one had founded a charge to them, and fall upon the carrion with ſo much greedineſs; that having eaten their fill, they cannot riſe again, and are eaſily knocked on the head with ſticks; the bones of their legs are valued to make ſciſſars, and their quills, which are as thick as one's finger, ſerve for harpſicals, and other curioſities. Out of this ſlaughtering-time they die with hunger; but among all the ways they have of maintaining themſelves, their way of hunting young goats and lambs is admirable: they ſit upon high trees, and from thence they ſpy the flocks of ſheep and goats, watching till any of the young ones ſtray from the guard of its dam, as they often do, either ſtaying behind to feed, or climbing ſome rock: this the Taltale quickly ſeeing, and that the young-one is far from the defence either of the ſhepherd or old-one, it leaps upon it, and the firſt thing it does, is to peck out its eyes, and eat its brains; which it does ſo quick, that though it cry, and the ſhepherd or mother comes to its relief, it is too late. Very like to theſe are another ſort of bird, both as to bigneſs, colour and ſhape, and its diſpoſition to prey; they call them Peuques, only they are ſomething leſs, and of a nicer diet, being pleaſed with nothing but hens or chickens, which they take very dexterouſly; they are ſo bold and nimble, as to get into a hen-rooſt, and carry away their prey, even in preſence of the owners, without being ſtopped or prevented.

CHAP. XIX. — *The ſame matter is purſued, and the flying of Hawks treated of.*

AMONGST the great number of birds which are bred in the lakes and ponds, and on the ſea-ſide, which are of great variety, none are more remarkable than the birds called Flamencos; they are white and ſcarlet, bigger than turkeys, but ſo long-legged that they walk through a lake with great gravity, the water not touching their feathers by a foot or two: the Indians delight in making works of their white and ſcarlet feathers, for their dances and their feaſts.

There is another bird, called the Child-bird, becauſe it looks like a ſwaddled child with its arms at liberty: I have not ſeen them any where but at ſea: perhaps they are the ſame, called Penguins, of which frequent mention is made by thoſe who paſs the ſtraights of Magellan: they are generally painted in the maps; and they ſay, there are abundance of them in thoſe parts, and that they are good meat.

There are other birds which furniſh the tufts of feathers, called Herons-feathers, which though ſo narrow, yet are ſo valued, that formerly every feather was worth two rials: thoſe which grow under their wings are larger and better, though thoſe on their heads, which they wear as aigrettes, are very fine. There are but few of this kind of birds; for they do not increaſe ſo much as others. There are more of that kind called Garcolas, which ſerve for ſoldiers' feathers, and other ornaments. There are many others of great variety of colours, of which the Indians uſe to make their ornaments, called Mallengues, which are made for the head like a garland of moſt fine colours of wool, and in that they ſtick a plume of feathers, for their dances and days of rejoicing.

The

The birds called by the Indians, Voycas, are very famous among them, in whoſe notes, at certain times and places, they find great myſteries, prognoſticating by them, either their own, or their children's, or their friend's death or ſickneſs, or other misfortune; and they remain with great apprehenſion and fear. The Spaniards call theſe birds Pechicolorados, that is, marked on the breaſt; becauſe there is no ſcarlet deeper, nor brighter, than the red on their breaſt: the other feathers of their wings and body are brown. There are other very little ones, called Pinguedas, whoſe body is not much bigger than an almond: theſe live upon flowers; and that they may come at the honey of them, nature has given them a bill, which, when it is ſhut, is like a needle to ſow with; and for this reaſon they feed flying, like bees, from flower to flower, without lighting but very ſeldom on a branch of it, and that very ſlightly. Theſe birds are of the greateſt beauty imaginable; for if they were made of poliſhed gold, they could not ſhine brighter: they have a green mingled with this gold colour. The males are diſtinguiſhed from the females, in that they have on the head a lively orange colour, which is like fire. Thoſe on the other ſide of the Cordillera are yet more beautiful, becauſe their tail is alſo of the colour of their head; and though they have ſo little a body, their tail is a foot long, and two inches broad.

There is likewiſe a very odd bird, to which the Spaniards have given the name of Wood-Pecker; becauſe, though they are but little, they have ſo ſtrong and ſharp a bill, that they form their neſts with it in the trees, forming a hollow place fit for them as exactly as if they had an inſtrument to do it. Of theſe I have ſeen but few; but there are great numbers of a kind of birds, called Condores, which are as white as ermine, and of their ſkins they make muffs, it being of a very ſoft touch, and extremely warm; but the bellies of the buzzards are much more ſo, being admirable to make ſtomachers to cover the pit of the ſtomach, and help digeſtion.

I have not ſeen ſuch variety of birds on the other ſide of the Cordillera; and the cauſe, I believe, is the dryneſs of the land, and the want of that ſhelter of woods and groves which are on Chile ſide; but in thoſe plains, called the Pampas, there are Francolins to be found, which are a ſort of wild hens, and as big, but much better meat, and of a higher reliſh. There are likewiſe oſtriches, which are a mighty bird, and very numerous there. They often find their neſts, and in them ſuch a quantity of eggs, as one neſt will feed a great company; one of them alone being beaten and fried, makes a pancake big enough to dine ſeveral people: their feathers are employed for umbrellas to keep off the ſun, and other good uſes.

It is a pleaſant ſight to ſee the taking of the Francolins: the Indian, with a ſtring made at one end into a running knot or nooſe, at the other, having a little piece of ſharp cane faſtened to it, goes out to find them, which, when he has done, he draws gently near, ſo as not to fright his game; when he is at a due diſtance, he begins to go round the bird, making with the cane ſeveral circles over his head. The Francolin is of its own nature a very fearful bird, and ſimple, and dares not riſe, becauſe he thinks he is encompaſſed round, but goes into the middle of the circle; where the Indian leſſening ſtill his rounds, follows it, ſo that at laſt it ſquats down upon the ground, and lets the Indian put the nooſe over its head; which, when he has done, touching it on the wing with the ſharp end of the cane, the bird flies up, and draws the nooſe cloſe, and ſo is catched like the fiſhes by an angling-rod.

It is not ſo eaſy to catch the oſtriches; for though they do not fly, yet they have ſuch large wings, that though a greyhound be very ſwift, if the bird has law of him, he will hardly overtake him; but if by chance he comes up with him by ſurpriſe, or otherwiſe, it is wonderful to ſee the art the oſtrich uſes to avoid his teeth; for when

when the dog is juſt going to ſeize, the oſtrich lets down one of his wings, and fixes it to the ground, covering with it its whole body: the greyhound thinking he has him ſure, takes hold with open mouth; but he fills it only with feathers, and is cheated; for immediately the oſtrich, before the dog can clear his mouth, ſets a running, and gets a good length before him; and often eſcapes, if the greyhound does not make extraordinary haſte to overtake it.

This is a very diverting ſport; but that which is uſed in Chile with falcons is much more ſo: not to fly partridges, for that is a known ſport every where; but with another ſort of bird, which the Indians call Quulteu, from the ſound of its note when it ſings, which ſounds ſo. Theſe are as big as hens, and have very large wings, and upon their wings they have, in the joining place, provided by nature for their defence, certain ſharp points. The Spaniards call theſe birds Friers, either becauſe they always go two and two, or three and three, or becauſe the colour and order of their feathers is ſo, that one would really think they have a hood and a frock.

For this ſport it is not enough to have one Falcon, but there muſt be two, and thoſe very well taught, and dexterous to aſſiſt one another. There uſes to be very good company to ſee the engagement, as we may call it; for it is worth ſeeing. Coming then to the place theſe birds haunt, which is generally ſome meadow or watery ground, (for that they never forſake, their laſt defence being in the water, as ſoon as they are ſprung) one at a time, the ſportſman flies one falcon at them, who, as if he minded not his game, endeavours to get as high as he can, and get the wind of his prey, who, at the ſame time, does the ſame thing, and contends for place with his enemy; ſo that they both get almoſt out of ſight; but at laſt the falcon having the better wing prevails. When he has got advantage enough over him, he comes down upon him like lightning; but the Quulteu defends himſelf, either by avoiding the blow, or by oppoſing the armed points of his wings; upon which often theun wary hawk is wounded in the breaſt. When the ſportſman ſees the engagement laſt too long, fearing his hawk may tire, or be balked before the victory declares for him, he looſes his other falcon to help the firſt, which being freſh, ſoon joins his companion, and both together fall upon the Quulteu, but not at the ſame time, leſt they ſhould hinder one another: one gives him a blow, and then the other another; and ſo, though he make a good defence, he is forced to yield, which he does, by making away for the water, where he has his laſt retreat to defend his life: here he expects his enemies upon his back, with the points of his armed wings turned towards them: the Falcon deſpiſing the danger, comes down with all his force, and ſeizing her with one foot, tears her to pieces; but it is not without receiving ſometimes dangerous wounds. The victory does not always coſt ſo dear; for that is according to the ſtrength of the contenders. I omit the ſhooting of wild-fowl in the fens and waters, which is nevertheleſs very entertaining, as are likewiſe the Indians' ways with nets, nooſes, arrows, night-lights; nay, the manner of catching the Falcons themſelves is as diverting: it is done with fine nets, in which they involve them, that they may not hurt their wings.

This is ſufficient about the birds; and ſince we are in the region of the air, ſo near heaven, let us ſay ſomething of it before we come down to the earth again.

CHAP. XX. — *Of the Heaven, and Stars, which are proper to the Kingdom and Regio of Chile.*

IT is the common opinion of all thoſe that have ſeen and dwelled in Chile, that it ſoil and heaven, if they have their equal, have not their ſuperior in the world; and though ſome ſay the ſtars of the artick pole are larger than thoſe of the antarctick, yet as to their brightneſs and beauty, and the light they give, and as to their numbers, with the clearneſs of the heavens where they are, there is none but muſt own the advantage on the ſide of the antarctick. We may give, as a natural reaſon of this, the temper of the climate, both as to the air and earth; for though there are in it ſo many rivers, as we have obſerved, yet they being rapid, and ſwift in their courſe, do not cauſe overmuch humidity by their ſtay, but afford only what is neceſſary for its fertility; and, of the two extremes, the country is rather dry than moiſt, particularly as far as thirty-four or thirty-five degrees, as is manifeſtly made out by two experiments: firſt, by the facility with which all wounds are cured, which uſe to be much longer in wet countries; and, ſecondly, it is proved from the habitations and houſes, where the beſt apartments are reputed to be on the firſt floor, they being looked upon in ſummer for cooleſt, and in winter for warmeſt; and, though they are watered every day in the year, and the floors moſt commonly but of earth, not at all upon vaults, yet they are never unhealthy; and there is no need of board-flooring, or mats, let the winter be never ſo ſharp. This is a convincing argument, that the country inclines to dryneſs rather than to humidity; from whence it follows, that the ſun raiſes fewer vapours; and therefore the air being clearer, the brightneſs of the ſtars is more conſpicuous; and for this reaſon the ſun ſets and riſes ſo glorious, caſting out reſplendent beams of light, which is not ſo on the other ſide of the Cordillera; for there I have ſeen the ſun pretty high, and its whole body viſible, and yet no ways dazzling, the vapours of the earth taking away the radiant beauty of its beams.

The experience of this is yet more admirable to thoſe who ſail from Peru for Chile; for though they keep out a great way from land, yet they know preſently by the horizon when they come to the height of Chile; for they begin to ſee it all diſengaged from clouds and ſerene, gilded and glorious, and its beauty increaſing upon them every day, as they gain more heighth towards the pole. On the contrary, when they ſail for the line from Chile, the nearer they grow to the tropick, that light and ſplendor grows duller and duller; ſo that in my voyage for Panama, I ſaw all the horizon muddy, ſad, and clouded, which continued till I got to the Havanna; where being in eighteen degrees north latitude, the horizon cleared up and grew every day better and better, till we got to Spain.

So much for the clearneſs and beauty of the heavens and ſtars, which may be confirmed by all thoſe who have ſeen the place; but it is not of the bigneſs of the ſtars. The aſtrologers pretend, that the contemplation of them, and their meaſure, belongs entirely to their art, and underſtanding beſt the diſpoſition of the celeſtial ſphere; but, in my judgment, they who can beſt ſpeak of this matter, are thoſe who have ſeen both poles, as is well obſerved by John and Theodore de Bry, in the eighth and ninth part of their twelve curious books, where they relate variety of hiſtories, obſervations, and voyages, which have been in the North and South America, as far as the ſtraights of Magellan. They report then the opinions of learned men, who, in ſailing on the South-Sea, obſerved what I ſhall here produce, tranſlated faithfully from their elegant Latin into our vulgar tongue, in theſe words:

" The learned of our nation, who have ſailed on the South-Sea, do relate to us many things of that ſky, and its ſtars, as well of their number, as beauty and bigneſs; and my opinion is, that the ſtars we ſee here, are no ways preferable to the meridional ones; but rather do affirm, without diſpute, that thoſe ſtars which are near the antarctick pole are more in number, and brighter and bigger."

He adds, beſides, ſpeaking of the ſtars of the conſtellation of the Cruzero, that their ſplendors and beauty are extraordinary, and that the Via Lactea, or Milky-Way, is much brighter in theſe parts. This is all from thoſe authors.

Peter Theodore, a moſt ſkilful pilot and aſtronomer, relates in particular the ſtars of that hemiſphere, and the fourteen figures or conſtellations they make. The firſt is the Cameleon, which contains ten ſtars; the ſecond is the Indian Aſpick, made up of four ſtars; the third is the Flying-Fiſh, which is made up of ſeven; the fourth called the Fiſh Dorado, is compoſed of five; the fifth is called the Hydra, and is of fifteen; the bird Toncan, which is the ſixth, has eight ſtars; and the Phœnix, which is the ſeventh, has fourteen; the Crane has thirteen, which is the eighth; in Noah's Dove, which is the ninth, there appears eleven; the Indian Sagittary, which is the tenth, has twelve; the Peacock, which is the eleventh, is compoſed of ſixteen; the Bird of Paradiſe, otherwiſe called Maaucodiata, has twelve; the thirteenth is the Triangle, and contains five; and the laſt is the Cruzero, in which are four, which make a croſs, with a little one cloſe by it, which makes the foot of the croſs. And though this Cruzero is the guide of thoſe who ſail in the South-Sea, as the Cynoſura is to thoſe who navigate the North-Sea, yet it is not immediately at the pole, but thirty degrees from it; but there being no ſtars of that bigneſs near it, it is made uſe of for that effect, but not for the needle; for that in either ſea, whether ſouth or north latitude, always turns to the north, though when one is in the South-Sea, the whole globe of the earth, or the beſt part of it, is between them and the north, according to the circle that the Cruzero makes. The fixed point of the pole ſeems to be between two, as it were, great clouds, though they are not ſuch, but cluſters of ſtars, not well diſtinguiſhable, ſuch as compoſe the Via Lactea; and they are always fixt, without ſtirring; and when the heavens are clear, they are brighter, and better ſeen. There are other ſtars nearer theſe clouds than the Cruzero; but not being ſo big, there is little notice taken of them, but only of the Cruzero ſtars, which are indeed very beautiful, and ſhine with great livelineſs.

CHAP. XXI. — *Of the Animals, as well proper, as new comers to the Kingdom of Chile; and alſo of the Bezoar-ſtones.*

TILL the Spaniards came to theſe American parts, there never had been ſeen in them either cows, horſes, ſheep, hogs, houſe-cats, nor rabbits tame or wild: nor dogs, except thoſe called cur-dogs; but no hounds, greyhounds, nor other dogs for game, either by land or water; no maſtiffs, nor little dogs, which we call lap-dogs; no goats, nor aſſes: but as ſoon as the Spaniards were ſettled in Chile, and found the land ſo proper for the breed of cattle and flocks, they have increaſed them to a degree of ſuperfluity; ſo that there is not only enough for the ſupport of human life; but alſo for thoſe animals who are carnivorous; for, as we have ſeen above, in the ſlaughtering time, much fleſh lies waſte in the fields, ſo that it is neceſſary to burn it, and throw it into lakes and rivers, to hinder its corrupting the air. That which in other parts is called a calamity and deſolation of the country, which is a murrain among cattle, in

Chile is thought a neceſſary purge of the too great abundance of it. This may ſeem a paradox; but yet is founded upon experience, becauſe the cattle increaſing as it does, and the land being ſo good, that it fattens them to a wonderful degree, (there being often taken out of one cow an hundred and fifty pounds weight of tallow, each pound of ſixteen ounces,) there is enough to do to get a vent for it. The ſame may be ſaid of the hides; for though Peru, where the beſt part of the conſumption is made, is ſo great, yet ſuch is the product of Chile, that it wants another Peru to conſume it; for this reaſon it is a gain to loſe the increaſe of the cattle, for then the profit is more, with leſs trouble and coſt of ſervants. In the beginning of the ſettlement in Chile, Don Antonio de Herrera ſays, that horſes were commonly ſold for a thouſand pieces of eight a horſe; and Gareilaſſo ſays, that at firſt a horſe did not uſe to be ſold in Peru at all, except upon the death of the owner, or upon his returning to Spain; and in that caſe they were ſold for four, five, or ſix thouſand pieces of eight a horſe. He ſays, he himſelf knew a ſoldier who had an excellent horſe, and that a negro going one day by with him in his hand, a gentleman, who ſaw them, ſent to offer the ſoldier ten thouſand pieces of eight for the horſe and negro, which he refuſed with contempt: but ſince that time horſes have multiplied ſo, that there being not people enough to feed and tend them, they are fallen extremely. The cows too have increaſed ſo as to cover the fields; and it is a wonderful thing to ſee in thoſe great plains of Tucuman and Buenos Ayres, vaſt herds of them feeding, without any other maſter than the firſt that will take them if he can. I have ſeen in Chile, in the territory of St. Jago, horſes already dreſſed for war, ſold for two crowns a-piece, to ſupply the army, and yet for ſhape, courage, and good qualities, they yield to no Neapolitan horſe I ever ſaw; no, nor to the Andaluzes, from whom they are deſcended; for they have had no reaſon to degenerate in ſo good a land. The cows too, which were at firſt out of all price, I have ſeen ſold for a crown a piece, and the calves for half a crown: the ſheep, ſuch as I have ſeen bought in flocks for Cuyo and Tucuman, have been ſold for three-pence, or three-halfpence a piece.

Theodore, and John de Bry, do mention ſome author who ſays, that rats were likewiſe ſtrangers to Chile, and were carried thither by an Antwerp ſhip that paſſed the ſtraights of Magellan: they muſt not mean the ordinary houſe-rats and mice, but thoſe great ones which have a large tail, and are about a foot long: they are called Pericotes, and are very miſchievous. This ſhip, without doubt, took port in ſome of thoſe of Chile, where it left theſe animals, ſo prejudicial and hard to deſtroy; for they reſiſt the cats, and it is a ſtout one that can kill them. But it is a wonderful thing to obſerve, that though in ſea-towns the magazines, ſhops, and warehouſes, are full of them, yet they never go further into the land, which they might eaſily do, by ſo much carriage as the commerce of thoſe parts requires. I believe the air of the Cordillera does not agree with them, and ſo may have killed thoſe which have been carried by chance with goods; for I do not remember I ever ſaw one in St. Jago, nor in any town far from the ſea ſide.

Among the animals that are proper to Chile, the firſt may be reckoned thoſe which are called the ſheep of that country: they are of the ſhape of camels, not ſo big, nor vaſt, and without the bunch that camels have: they are white, black, brown, and ſome are aſh-coloured. The authors above cited ſay, that anciently they ſerved to plow the land in ſome parts, before there were oxen in it; nay, in the relation of George Spilberg and his fleet, it is ſaid, the Dutch paſſing by the iſland of Mocha, ſaw the Indians uſe them in that work.

They are made uſe of at this time in ſome parts, for carriage of wine, wheat, maize, and other proviſions; and I remember to have ſeen them about thirty years ago ſerve to carry water at St. Jago from the river to the houſes, for the uſe of the family; but now they are not at all employed there in this kind of labour, there being ſuch quantities of mules and aſſes for all that ſervice. Theſe ſheep have their upper lip ſlit, with which they do, as it were, ſpit at thoſe who vex them; and the children, who uſe to do it, when they ſee them ready to ſpit, run away; for they know, and it is a common truth, that wherever their ſpitting falls, it cauſes a ſcab; and having a very long neck, about three feet long, they uſe theſe defenſive arms the better. Their wool is extremely valued; for of it are woven cloaks or mantles ſo fine, that they look like camblet: they govern them by a kind of bridle, which they put through holes in their ears, and ſo by pulling the reigns, turn them which way they will: they kneel down to be loaded, and when the loading is well fitted and faſtened, they riſe and carry it very gravely.

There are likewiſe natural to that country a ſort of little rabbits, called by the Indians Pegues, which they eat with much pleaſure: they are wild. The taking of them is very good ſport: for they carry water in great tubs to their holes; and though they are very deep, and have ſecret iſſues and correſpondencies with each other under ground, to avoid being purſued by the hunters or their dogs, yet the water overcomes them; and while they fly from it, the Indians watch for them at their other holes, and with their dogs take them as they come out to avoid the water.

There are another ſort of little rabbits, which are like theſe, but they are tame, and the Indians call them Cuyes, which are alſo very good meat: they are of pretty colours, and ſpotted: they are very common every where.

The ſquirrels are not ſo; and I do not know they are to be found any where in Chile, but in the valley of Guaſco: they are grey or aſh-coloured, and their ſkins are mightily valued for furs, for their warmth and fineneſs of the touch.

The animals called Guanacos, Chamois, or wild goats, are very like theſe country ſheep, as well in their ſhape as motions; but they are of a different colour; for they are red, of a clear colour: they never can be tamed, but go in flocks, feeding in the fields; and it is as much as a very ſwift horſe can do to overtake them running; and if they have the leaſt ſtart of them, they ſeem to play with them; for by an eaſy gallop, they make the horſe ſtrain; in which they are much helped by their long legs, for by them they gain more ground at every reach: yet it is very eaſy to catch the young ones, or thoſe that are not uſed to be hunted; becauſe being ſo tall, and their bones, becauſe of their youth, not well knit, they are eaſily tired; ſo that by following a flock of them on horſeback with dogs, (and they go three or four hundred in a flock,) the young ones are forced to lag behind, and ſome are killed by the dogs, ſome are knocked on the head with a ſtick by the hunter. I have ſeen them bring thus three or four dead at a time. And this is not only a pleaſant, but a uſeful ſport; for the fleſh of theſe young ones is like kid's fleſh, and is eaten freſh: but that of the old ones is not ſo, but dried and ſmoaked: it is the beſt of that kind in the world.

Theſe creatures breed, in a bag they have under the belly, the bezoar-ſtones, which are ſo valued againſt poiſon, and malignant fevers, good to rejoice the heart, and other admirable effects. The matter out of which they are made, are herbs of great virtue, which theſe animals eat to cure themſelves of any thing they ail, and preſerve themſelves from the poiſon of any venomous creature, as ſerpents, or poiſonous plants, and other accidents.

Theſe

Theſe ſtones are found in the oldeſt Guanacos; and the reaſon is, that their natural heat not being altogether ſo ſtrong as the heat of the young ones, they cannot convert into their ſubſtance all the humour of the herb they take to remedy their indiſpoſition; and ſo nature has provided, that what remains may be depoſited in that bag, and be made a ſtone to cure in men the ſame infirmities: according to this notion one may obſerve, that the ſtone is compoſed of ſeveral coats, ſome thicker and ſome thinner, according to the quantity of matter that is gathered together at each time, juſt as a wax candle is made by ſeveral coats given it at ſeveral times to form its bigneſs.

It is likewiſe a thing well experienced, that in thoſe countries, where there are moſt vipers and other poiſonous animals, theſe ſtones are moſt plentiful; and the cauſe is manifeſt, becauſe theſe animals, and the deer-kind, do beat ſo much ground for their livelihood, they are more expoſed to venomous creatures, which, when trod upon, wound them ſorely, and they run naturally to their remedy in theſe herbs; and as they do this more frequently in thoſe parts where they receive moſt damage, by conſequence there are more of theſe ſtones engendered.

From hence it happens, that in thoſe parts of Cuyo, there is a greater quantity of theſe bezoar-ſtones to be had, than in that which we call properly Chile; for there are many vipers and poiſonous creatures, of which Chile is very free, as we have ſaid: and yet there are taken ſome ſtones here, but the greateſt part come from Cuyo; to which likewiſe it is of ſome conſideration, that there are bred more Guanacos and ſtags than in Chile; for that country being not ſo populous, and having ſuch vaſt plains, theſe animals have room enough for food and for increaſe: but it is not ſo towards the ſea-ſide of Chile, for that being very populous, and full of cattle and flocks, there is no room for the wild ones, except upon the edges of the Cordillera, from whence they come down into the plains ſometimes.

The bigneſs of theſe ſtones is in proportion to the animal that breeds them; the moſt certain rule is, that if they are little, there are many in the bag, and fewer if large; and ſometimes, when very large, there is but one. I carried with me to Italy one that weighed thirty-two ounces; and yet that was not it which made it the moſt valuable, but its virtues and ſhape, for it was a perfect oval, as if it had been turned by a turner: the Indian who found it had ſeventy pieces of eight for it; becauſe when a great ſtone is found, it is not ſold by weight, but according to the eſtimation of the owner, and the bigger the dearer.

The virtue of theſe bezoar-ſtones is very well known and experienced; and people of quality take them, not only in the time of their ſickneſs, but alſo in health, to preſerve it: the way of uſing them is to put them whole into the veſſel that holds either the wine or water, or into the glaſs out of which one drinks, and the longer they ſtay in, the more virtue they communicate. And if a perſon be not much indiſpoſed, there is no need of uſing them any other way; but if any one ſhould be attacked by any diſtemper of conſequence, and be ſick at heart, or be affected with melancholy fits, it would have more virtue to grate a little of the ſtone to powder, and drink it; whatſoever way it is taken, it comforts the heart, purifies the blood; and the uſing of it is looked upon as a preſervative againſt all infirmities.

There are alſo bred in the Pampas, or the plains of Cuyo, many hares; and one ſort, called Chirichinchos, whoſe fleſh taſtes like that of ſucking pigs. But the greateſt increaſers are the Guanacos, and the deer. It has been ſaid already, that in Chile there are but few, for the reaſons alledged; but there is great quantity of wild cows and wild mares, which came at firſt from ſome which went aſtray, by the negligence of the

owners; and being once in thoſe mountains, they have increaſed ſo wonderfully, that they are become a game, and many go to kill them, or take them for profit.

CHAP. XXII. — *Of the Trees growing in Chile.*

AMONGST other obligations which the land of America has to Spain, one is, the having enriched it with ſo many noble plants, trees, and ſeeds, which it wanted; for before the Spaniards conquered it, there were not in all America either vines, fig-trees, olive-trees, apple-trees, melicotoons, peaches, auberges, quinces, pears, pomegranates, cherries, apricots, plumbs, oranges, lemons, citrons, nor almonds. As for ſeeds, there was neither wheat, barley, nor oats, aniſeed, coriander-ſeed, cumin, nor oreganum, lint-ſeed, flax, peaſe, beans, nor cabbage, lettice, raddiſhes, cardoons, chicory, nor indive, berenguenas, gourels, melons, cucumbers, parſley, garlick, nor onion. But inſtead of theſe trees, fruits, and plants, the Author of nature had provided them with others of great uſe and good reliſh, ſuch as maize, all over America: Friſoles, Las Papas el Madi, Los Capallos, and ſome others, are proper only to Peru, and the land within the tropicks; the Camotes, Guayabas, Mammeyes, Plantanos, Zipitapotes, Anones, Niſperos, Aquacates, Pinnas, Guanabanas, Papayas, Pitabayas, and many others, which, though highly commended, do not generally come up to the reliſh of the European fruits. And the bread and wine has been a ſingular addition to them, ſuch as the Indians value more than all their product, and particularly the wine, which is their chief delight; as for bread, they value it, but not ſo much.

Though America is obliged to Europe for all this addition, yet Chile much more, as having the greateſt advantage by it, and with more plenty than any other part of the new world; for though all that we have named of European plants are to be found ſomewhere, yet not all every where; for in ſome there grows corn, and not wine; in others, both thoſe, and not oil; in others, neither corn, wine, nor oil, but other fruit-trees. The ſame thing may be ſaid of the animals to eat; ſome have beef, others mutton, others pork, which on the continent is a delicacy, and is given to the ſick; ſo that running over all America, we may find that this communication of new creatures has reached ſome parts for one thing, and ſome for another. But as for the kingdom of Chile, it may be ſaid to have been totally obliged and enriched; for all the trees, ſeeds, plants, and all the animals, &c. of Europe, are to be found there, and that almoſt in every part of it, for it is rare to ſee any thing take in one place, and not in another; but if it does, they may eaſily have it from their neighbours, if it be not ſo good, or not at all with them.

In the third chapter of this book, we have already mentioned how all theſe European fruits and ſeeds take in Chile, but we can never enough dilate upon that ſubject: it will hardly be believed by moſt people, particularly by thoſe, who, never having been out of their own country, are ſo in love with it, as not to imagine there can be any equal to it, much leſs exceed it; and we relating things ſo diſtant, of which we cannot bring ocular witneſſes, we are the more liable to contradiction; but ſince we are writing a hiſtory, we muſt ſpeak the truth as we know it, and it really is.

Some trees do not exceed in bigneſs thoſe of Europe of the ſame kind, as cherry-trees, quince-trees, almond, peach, and pomegranate-trees, olive, orange, lemon, and citron-trees, melicotoons; which laſt, in Tucuman, are nevertheleſs very large, and to that degree, that three or four men ſometimes cannot embrace the body of one of thoſe trees. I have ſeen ſome apple-trees as big as elm-trees; the pear-trees are yet bigger,

bigger, and much more the mulberry-trees, and walnut-trees; though as to their fruit, it is not ſo large as that of Europe, the nuts having the ſhell as thick again, and by conſequence leſs meat. This is as to the garden-trees brought from Europe.

As for the trees natural to that country, they are of two ſorts, the one is fruit-trees, the other not: of the firſt, I find only three kinds or ſpecies of thoſe, which are likewiſe in Europe, which are the avellanos, or haſel-nut, the pine-tree, and the algarrabos, or cod-tree. Of thoſe which are not properly fruit-trees, there are the laurel, the oak, the willow, the cypreſs, which are in great abundance, and very large; out of theſe they have boards very fit for boxes and trunks, which are no ways pieced, but of one plank; the doors and coverings of the churches are alſo of this cypreſs-wood.

Theſe trees grow moſt commonly in the precipices of the Cordillera, which being very deep, the cypreſſes are extremely large and tall, for they ſhoot up till their tops can be warmed by the ſun-beams; ſo that they are as ſtraight as a wax-candle, and of ſo fine a ſmell and perfume, that though it be ſo plentiful, it bears a good price, and a greater in Peru, to which it is carried, as well as the cedar, which does not ſell ſo well, becauſe there are more of them.

Theſe cedar-trees are without compariſon bigger, and have larger heads than the cypreſs-trees, and of one of them are made ſeveral planks; but more of this when we come to ſpeak of the iſland of Chiloe, for there they are larger than in any other part. The colour of the wood is red when it is firſt worked, but in time, and by degrees, it loſes that lively colour, and comes to be of a kind of walnut-tree colour; the planks are of the faſhion of cedar planks, not ſo ſubject to the worm, but more eaſy to work.

The oak alſo yields very large planks, for they thrive exceedingly, and grow very thick; ſome of them are white, and the wood of them is corruptible; others are red, and incorruptible.

The planks from the Paragua-tree are the moſt in uſe, but leſs valuable. The tree is a handſome branching tree, keeping its leaves green all the year: they are like elms.

The moſt common wood of all, and that of which there is moſt plenty, which ſerves for the covering of houſes and roofs, is the cinnamon-wood. Theſe are very large trees, of a beautiful aſpect; they keep their leaves all the year, and are like that which in Italy they call the laurel-royal. The Guayac-tree is bred in the mountain or Cordillera, and from thence has its hardneſs and heavineſs, which is ſuch, that it is like iron; and the balls made of it to play at billiard, are almoſt as hard as the ivory ones; the tree is no large tree, and the heart of the wood is a yellow mixed with green; the decoction of it is good for many infirmities. The ſandal-tree is very odoriferous; there are great quantities of them in the iſlands which are named from Juan Fernandes; it is a preſervative againſt the plague, and is uſed by the confeſſors, and others, who are bound to approach infected people. There are other trees and ſhrubs of admirable virtue, for ſeveral infirmities, of which the Indians have a particular knowledge, and perform admirable cures with them.

The fruit-trees bred in the mountains are many, and of great variety: let us firſt treat of that which indeed carries the palm, not only becauſe of its name, but that its height, beauty, and abundance, and that of its moſt excellent fruit, challenges the firſt place among all the reſt.

They grow generally upon the mountains, and in precipices, ſo thick together, that ſeeing them at a diſtance, one would think they were a clump ſet by hand; they are very thick and high; all the body of the tree is naked till the top or firſt ſprout;

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its nature is to loſe all its old branches as the new ones come out; by which means, the body of the tree riſing free, and diſencumbered from ſuch boughs as uſe in other trees to grow out of the ſides of them, is totally employed in feeding the top; and the fruit which grows within it, being, as it were, a pyramid round it, to preſerve it by the admirable texture of its leaves and branches which incompaſs it.

Theſe palm-trees have a wonderful property, and moſt certain, which is, that none of them give their fruit, except they are in ſight of each other; and if it happens that one comes up alone, without a companion, though it thrive to a great largeneſs, yet it never bears, except another be planted by it, and this they call the female; and as ſoon as the female is planted, though never ſo little a one, yet the great ones bear, and the ſecond in its time, when it is big enough: I have ſeen the experience of this; and it is a thing well known to all. The fruit of theſe trees is called Cocoas, and is like filberts, though bigger by half, and the meat within the ſhell is not ſolid, but hollow, and is, round the edge, about the thickneſs of a crown-piece, and in the reſt of the hollow is a kind of milk, or water, of an excellent reliſh; and ſo is the fleſh of it, which is white, and ſerves to preſerve the liquor like a viol, which ſtays in it till it be imbibed by the cocoa, which happens in ſome months; and then they are not ſo good to eat as when they are freſh; but then they are good to preſerve, as almonds are, and other kernels of that nature.

Antonio de Herrera, and other authors, ſay, that theſe cocoas are good againſt poiſon; and nature ſeems to ſet a value upon it, by the many covers in which it is involved; firſt, the kernel is covered with a ſhell harder than that of the almond, then it has another cover of a green colour, and ſometimes yellow, which is woven ſo cloſe about it, and ſo ſtrongly, that when it is green, it is eaſier to break it than to peal it off. The fruit grows cloſe to a ſtalk, which ſometimes will have above a thouſand on it; and this is environed by a great ſhell, which grows bigger and bigger with that bunch it contains, till at laſt the fruit makes it burſt and open into two parts, which are like two boats, each above half a yard long, and two ſpans diameter in the broadeſt place, and the bunch within all of a fine yellow, very beautiful to look on. It hangs on the branches till it be ripe, and then falls to the ground, where it is gathered, and great proviſion is made of it for Peru; for beſides their being made a ſweetmeat, the children rid the merchants of them for play-things, it being one of their greateſt entertainments.

The palm-trees which bear dates do not ſeem to be natural to this country, but brought from abroad; for I never ſaw them, as others, wild in the fields, but only in gardens.

There are other fruit-trees wild, which come in the fields, and are called Pengue; they have a red fruit, ſomething bigger and more oval than the filberts; theſe the Indians eat boiled with other ingredients. There are alſo trees called Magues, which are very beautiful and cooling; the leaves are admirable againſt a burn; the fruit is black like a myrtle-berry; it is very well reliſhed, having a *dulce-piquante* very agreeable; it blackens the mouth and hands when it is eaten, and, for that reaſon, the more civilized people do not uſe it ſo much. There are alſo fruits of which the Indians make their fermented liquors, whoſe names and properties I cannot call to mind; only I know there is great variety of them; and I can remember one called Quelu: the fruit is very ſweet and ſmall, between red and yellow; of this they make a drink extraordinarily ſweet. They make another drink of that which they call Iluigan, and the Spaniards, Molle; it is of the ſhape and colour like pepper; the tree on which they grow is but little, but a great bearer: this drink is very agreeable, and coveted even by the greateſt

greateſt ladies. The moſt common drink of the Indians is made of maize, which is the ordinary bread and ſuſtenance of the Indians.

Let us end with the tree called Murtilla; though, if we believe the authors who treat of it, it deſerves to be ranked in the firſt place. Antonio de Herrera ſpeaks ſo well of this tree in the ninth decade of his Hiſtory of the Indies, Book IX., and folio 247, that I will relate only what he ſays, and that in his own words, which are as follows:—"There is a kind of fruit of trees that grow on the mountains, which grow from thirty-ſeven degrees upwards, and in thoſe countries it is a common food; the natives call it Uni, and the Caſtillans, Murtilla. It is red, and like a ſmall grape, ſomething bigger than a ſwollen pea; its ſhape and colour is like the pomegranate grains, its ſmell and taſte agreeable, and not unlike a grape. It has little grains like a fig, which are almoſt imperceptible to the tongue; its temperature is hot and dry: of this they make a wine, which exceeds all other liquors, even that of the Eaſt India cocoa, or palm-tree: neither cyder, mead, nor beer, nor all the other drinks deſcribed by Andres de Laquuna, are to be preferred to it. This wine is clear, fine, warm, and very agreeable to the taſte, as well as profitable to the ſtomach. It conſumes all vapours in the head, its heat warming the ears without going any further: it comforts and cheriſhes the ſtomach, increaſes appetite, and never takes it away. It never offends the head, or makes it heavy, or burthens the ſtomach; and it bears as much water again as wine will do. Thoſe who have taſted it, commend its colour and flavour, as much as that of grapes. Its colour is golden, and mighty bright; and it is as ſweet and good as the wine of Ciudad Real. There is little of it made, and ſo it laſts but eight months; for which reaſon, it is not known how many years it would keep. It takes up as much labour and care as wine, in the making: if it be left to itſelf, and without fire, it is forty days before it ferments. It caſts down a lee, and works out the frothy part at the top of the veſſel; and, for that reaſon, care is taken to ſcum it as it boils, and then it is drawn off into another veſſel. When it is turned to vinegar, its vinegar has a better taſte and colour than wine-vinegar; for it retains the colour of the fruit, which is very odoriferous and ſweet." Thus far this author: from whence it may be inferred, that this land had good wine of its own; and it had alſo very good oil made of a ſeed called Madi; it is extremely well reliſhed; but now it is not much in uſe, becauſe that of olives is ſo common.

It is not poſſible to deſcribe particularly, one by one, all the various ſorts of trees that are bred in the woods and mountains of Chile; and it would take up a very large treatiſe, which is not my purpoſe; yet when we come to treat of the ſtraights of Magellan, we will ſpeak of the cinnamon-tree, which is to be found there, and of the barks of ſome other trees of that ſoil, which have the ſame taſte as the Eaſt India pepper. All that I can ſay at preſent, is, that there are few of theſe trees that loſe their leaves in winter, particularly thoſe which grow wild in the woods, which are generally aromatick, and of a very fragrant ſmell; and of them, all the fineſt of this kind are bred in the territory of the Conception. I would not have believed it, if I had not ſeen it; for in travelling I met with lovely groves, which bordered the highways, and caſt out ſo rich a ſmell from their leaves, that the flowers of jaſmin did not appear ſweeter. There are alſo abundance of myrtles and laurels, which grow in great groves naturally; and yet among them there are trees whoſe leaves exceed them infinitely in the perfume of their ſmell; inſomuch that, paſſing one's hand over them, one would think one had amber gloves on.

BOOK II.

TREATING OF THE SECOND AND THIRD PART OF THE KINGDOM OF CHILE.

CHAP. I. — *Of the Iſlands of the Kingdom of Chile.*

HAVING, for the better deſcription of the kingdom of Chile, divided it into three parts, we have treated of the firſt and principal one, which is that which is properly called Chile, in which many things are ſaid which are common to all the three parts; therefore, in theſe two which remain, we ſhall take notice of that only which ſhall be peculiar to them, to avoid repetition.

We come now to the ſecond part, which are the iſlands which are ſpread all along the coaſt of the South-Sea, as far as the ſtraights of Magellan; I ſay, they are many in number, and ſome of them very large ones; as that of Sancta Maria, La Mocha, Juan Fernandes, and, above all that of Chiloe, in which is founded the city of Caſtro. Some make theſe iſlands fifty, ſome ſeventy leagues in length, and about ſix or ſeven leagues in breadth. In the ſame ſea, or archipelago, there are many more, ſome of ten leagues, and others leſs; and in all, reckoning thoſe that are within the ſtraights of Magellan, there are above two hundred diſcovered.

Juſt over-againſt Coquimbo there are three, which are called Del Soboral, De Muxillones, and De los Paxaros, in thirty degrees latitude; two more in thirty-three and forty degrees: there are eight ſmall ones juſt over-againſt Val Paraiſo, which are called the iſlands of Juan Fernandes; who dying, left them to the Jeſuits. Then follows the iſland Quiriquina, which is in the bay of the Conception. Juſt over-againſt Arauco is the iſland of Sancta Maria, in the thirty-ſeventh degree; and in thirty-eight that of La Mocha. Hard by Valdivia, about forty-three degrees, comes the archipelago of Chiloe, which is compoſed of forty iſlands; and hard by it is the province of Calbuco, in which there are twelve more. Thoſe of Los Chonos are as many, in forty-five degrees; and in fifty degrees are the eighty iſlands diſcovered by Pedro Sarmiento, as ſhall be related hereafter.

The iſlands of Chiloe are reputed barren; but their ſoil is not really ſo, only the exceſſive rains choak the ſeed, and do not let the corn thrive; ſo that they are without wheat, wine, or oil, or any other plants which need much ſun. The nature of the climate of this archipelago is ſuch, that it rains almoſt all the year, ſo that only maize, or other ſuch grains, can ripen, that do not want ſo much ſun. The nouriſhment or diet of the natives, is moſtly of a root called Papas, well known over all the Weſt Indies, of a good nouriſhment; and they grow there bigger than in any other place. They have beſides ſome maize, ſome fiſh, and particularly ſhell-fiſh, which is excellent in thoſe ſeas. They have few ſheep, but very good poultry, as well as hogs, and ſome beef; with which, and what beſides is brought to them from St. Jago, and the Conception, the Spaniards, both of the garriſon and city of Caſtro, make a good ſhift. This city is the capital of the chief iſland; in which, and in the reſt, there is a great quantity of honey and wax made. And Herrera and other hiſtorians ſay, there are mines of gold upon the ſhore; and they remark it as an extraordinary thing, and hardly heard of in any other place.

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The manufactures of theſe iſlands are the clothing for the Indians, who have a kind of veſt which they call Macun, and it is without ſleeves, becauſe their arms are naked; and over this they put a garment called Choni, which ſerves for a cloak, and is like that which painters give to the apoſtles in their pictures. They have another commodity from their woods, particularly of the plank they make of a tree, which is a cedar, and of which they have vaſt woods, and in them trees of a prodigious ſize; for Friar Gregory of Leon, of the order of St. Francis, in his map of Chile, which he dedicates to the preſident Don Loüis Fernandes de Cordoua del Carpio, ſays, that ſome of theſe trees are ſo big that they cannot be hardly encompaſſed by a rope of ſix yards long; and out of the wood of the boughs there has been made ſix hundred planks, of twenty-five feet long, and two feet broad; and that which is conſiderable, is, that this plank is not ſawed, but cut with axes; in which there is much more loſs. This author deſerves belief, as well from the experience of forty-two years that he lived in Chile, as from having been definitor of his order. And what I have heard from the mouth of a colonel, who was both born and bred in that country, will ſerve to confirm this; which is, that if two men on horſe-back are on each ſide of the tree, when it lies along, they cannot ſee one another; for the body of the trunk hinders them. Theſe planks are carried to Chile and Peru; and in exchange they bring back proviſions to live on. The iſlands of Chono are yet poorer than theſe; becauſe, that being nearer the pole, their ſummer is ſhorter, and their rains more copious, inſomuch that they drown the earth, and hinder it from producing.

We have little knowledge of any other iſlands beſides thoſe of Chiloe; becauſe the continent being ſo large, and yet not thoroughly peopled, there has been little occaſion of inhabiting any more than ſome few of theſe iſlands; by which means there is but ſmall diſcovery made of their qualities; though it is reaſonable to think they reſemble the land over-againſt which they lie.

As for the iſlands of Juan Fernandes, I will relate what I find writ about them in Theodore and John de Bry, in their relation of the voyage of John Scutten: they ſay then, that theſe two iſlands are very high land: the leaſt of the two, which is the weſternmoſt, appeared to them barren, as being covered with wood, and very mountainous; though not landing on it, they could make no judgment of the inſide of the iſland. The bigger iſland, which is the eaſternmoſt, is likewiſe mountainous, but has great variety of trees, and much graſs, with which are fed great herds of ſwine and goats, bred from ſome few which were put on ſhore by John Fernandes, who began to cultivate theſe iſlands as his own; but he dying, and the Spaniards finding greater advantages upon the continent, they forſook thoſe iſlands, which were out of all trade, leaving their ſtocks of cattle behind them, which now are infinitely multiplied.

They ſay beſides, that coming to this, which they call the Fine Iſland, they found a port very ſafe for their ſhips, having twenty or thirty fathom depth, the ſhore all ſandy and even, with a delicate valley full of trees of all ſorts, and wild boars, and other animals feeding in it; but they could not diſtinguiſh them, by reaſon of the diſtance they were at. They extol particularly a moſt beautiful fountain, which coming down from high rocks, rolls into the ſea by different canals, which form a pleaſant proſpect, and its water is very ſweet and agreeable. They ſaw alſo great ſtore of ſeals, and other fiſh, which they caught in great plenty. In ſhort, they were ſo in love with this iſland, for the good qualities they diſcovered even at its entrance, that they were very unwilling to leave it though preſſed in point of time.

I do not doubt, but this is a very pleaſant ſituation: for in its temperature, and other properties, it muſt be very like Val Paraiſo and St. Jago, becauſe it is almoſt in

in the ſame degree weſt; and without doubt theſe iſlands will be peopled in time, when the continent grows populous, as it does every day; for then people will be ſeeking new habitations; but at preſent they only go thither ſometimes to fiſh, to ſend it to Peru, where they have it not ſo plentifully.

The ſame authors, giving an account of the other Dutch ſquadron under George Spilberg, ſay, that they came to the Iſland of Mocha, and found the north ſide of it plain and low, but the ſouth full of rocks: they landed; and the good reception they found from the Indians, is an argument of the fertility of the place. Thoſe Indians are a noble ſort of people, and very good natured. When they had refreſhed themſelves much at their eaſe, they made proviſion of great ſtore of ſheep, which are very large, and in great plenty there, as likewiſe of hens, eggs, fruit, and other proviſions. They treated the Indians on board, and ſhewed them their great guns, and their men in order for fighting: they preſented them alſo with European commodities, ſuch as hats, clothes, axes, and things which they valued. After this, they ſet them again on ſhore: and the Indians made ſigns to them to go back to their ſhips, as they did.

But they were very differently received in the Iſland of Sancta Maria, where the vice-admiral landed with ſome of his men, and were invited by the Indians to eat; but from the ſhips they ſaw a great army coming down upon them, as they were going to ſit down to table; whereupon they made ſigns to them to retreat to the port; which they did, and had juſt time to embark. But they likewiſe carried off about five hundred ſheep, and other refreſhments, having found the iſland very fertile and well provided, as well as very temperate, being about thirteen leagues ſouth-weſt from the city of the Conception, about thirty-ſeven degrees, and not above three leagues from Arauco; which makes ſome think, that formerly this iſland was faſtened to the main land, and that the ſea had in length of time made the diviſion which now forms the bay of Arauco.

There is a little to be ſaid that is particular of all the other iſlands to the ſtraights of Magellan, ſince it has not pleaſed God to let them be peopled by Spaniards, and ſo give an entrance to the goſpel; by which means the product and nature of them might be known, and many ſouls ſaved which inhabit them.

All that we know now of them, is, that in the voyage of Pedro de Surmiento to Spain, being ſent by the viceroy to chaſtiſe Francis Drake, for his boldneſs for infeſting thoſe coaſts; in his way, on this ſide the ſtraights of Magellan, he diſcovered a great archipelago of iſlands, which they told to the number of eighty, which he named by ſeveral names, and took poſſeſſion of them in the name of his king. He alſo diſcovered more iſlands in fifty-one degrees, to which he did the ſame. It is known likewiſe, that in the ſtraights themſelves there are many iſlands, ſome of which we ſhall mention when we treat of the ſtraights of Magellan.

CHAP. II. — *Of the Land called Terra del Fuego.*

THE land called Terra del Fuego, (ſo famous in the relations and maps we have of the ſtraights of Magellan,) has deceived many by its name, people believing that it had been given it for ſome volcanoes, or burning mountains, or other ſubterraneous fires; but it is not ſo, for this name had no other occaſion, than that the firſt navigators through the ſtraights diſcovered upon it many fires and great ſmokes, made, as they ſuppoſed, by the numerous inhabitants of it; and ſo they called it the Land of Fire. There aroſe likewiſe another miſtake from its great extent; for it was judged to be a great continent, of which in time the world was undeceived, as we ſhall ſee hereafter.

This land, called Terra del Fuego, is that which forms the ſouth ſide of the ſtraights of Magellan, extending itſelf the whole length of the ſtraights, eaſt and weſt, above one hundred and thirty leagues. Formerly, before the ſtraights of St. Vincent, otherwiſe called the ſtraights of Le Maire, were diſcovered, this land was thought to be joined to ſome other great continent of the Terra Auſtralis, which was ſuppoſed to join to New Guinea, or the iſlands of Solomon; and Ortelius, in his geography, is of this opinion; but upon the diſcovery of the other ſtraights of St. Vincent, that doubt has been cleared, ſeveral having gone through them to the South-Sea; and among the reſt, two caravals ſet out by the king's command, in the year 1618, on purpoſe to view theſe ſtraights, which it was ſaid had been diſcovered by James Le Maire, which caravals were commanded by Don Juan de More.

Theſe two veſſels ſet out from Liſbon in the month of October 1618, and being come to the eaſt entrance of the ſtraights of Magellan, they paſſed by it, and ran along all that coaſt, without finding any entrance, till they came to that of Le Maire, which they went through, in leſs than one day's time; after which they turned to the ſouth, and afterwards to the weſt: they went round all the Terra del Fuego; and ſailing north, came to the weſt entrance of the ſtraights of Magellan, into which they entered, and ſailed through them to the North Sea. Having thus made a circle clear round the Terra del Fuego, they proved it demonſtratively to be an iſland ſeparate from all other land. The ſame was done by Sir Richard Hawkins, an Engliſh gentleman, who having paſſed the ſtraight of Le Maire, ſailed for five and forty days to the ſouth, without finding any land contiguous to the Terra del Fuego, but many iſlands, as related by Antonio de Herrera, chap. 27, of the deſcription of the Weſt Indies. The ſame has been confirmed by ſeveral, who being driven by ſtorms from their intended courſe, have been forced to run towards the ſouth pole; amongſt the reſt by Francis Drake, who having paſſed the ſtraights of Magellan the ſixth of September, 1572, and being got on the ſeventh, a degree from the ſtraights, was carried by a ſtorm two hundred leagues to the ſouth; and coming to an anchor in ſome of thoſe iſlands, he there found that the ſun being eight degrees from the tropic of Capricorn, the days were ſo long, that there was not above two hours night; from whence he inferred, that when the ſun came to the tropic, there muſt be a perpetual day of twenty-four hours. The ſame was experimented about two years ago, by the fleet of General Henry Brum; which having paſſed the ſtraights in April, were by the force of ill weather carried into ſeventy-two degrees, and caſt anchor at the iſland of St. Bernard, to which they gave the name of Barnevelt; and it being about the entrance of winter, the days were not above three hours long, ſo that they expected they would ſtill ſhorten till June, when the ſun being furtheſt off from that hemiſphere, would leave them in a total night; for this reaſon, and becauſe of the hardineſs of the weather, which increaſed every day, they durſt not winter in that iſland, as they had a mind, but after a fortnight's ſtay in it, weighed anchor, and ſailed for Chile. In which voyage they made but little advance, having always the wind a-head, inſomuch that they were a whole month doubling one cape, and loſt in the endeavour their Tender, in which was the beſt part of their proviſion.

So much for the iſlands belonging to the coaſt of Chile; but having alſo mentioned the iſlands of Solomon and New Guinea, to which antiently it was thought that the land of Terra del Fuego was joined, it will be well to ſay ſomething of them.

The author who writes the beſt of them, is Antonio de Herrera, and from him is taken what John and Theodore de Bry ſay of them; which is thus:

The

The iſlands of New Guinea run from ſomething more than one degree ſouth of the pole antarctick, three hundred leagues eaſt to the fifth or ſixth degree; according to which reckoning, they fall about the weſt of Payta. The iſlands of Solomon fall to the weſt of Peru, about eight hundred leagues from its coaſt, and extend themſelves between the ſeventh and twelvth degree: they are diſtant from Lima about fifteen hundred leagues: they are many, of a good ſize: there are eighteen principal ones, which are, ſome three hundred, ſome two hundred, ſome one hundred, ſome fifty leagues, and leſs in compaſs. Between them and Peru, inclining to the land of Chilethere, is another called the iſland of St. Paul, about the latitude of fifteen degrees, and about ſeven hundred leagues from the Terra Firma.

The fleet of William Scowten having run along the coaſt of Chile in the year 1615 or 1616, from the ſtraights of Magellan, took their courſe to the weſt, when they were about the latitude of eighteen degrees, to try to find out ſome new iſland, and found one in fifteen degrees; which, according to their computation, was diſtant from the coaſts of Peru about nine hundred leagues. After this they diſcovered two more, which they called the Cocoa iſlands, by reaſon of the great plenty of that fruit that was there, that the inhabitants did uſe to drink the ſweet liquor that was bred within the cocoas, but when it was at an end, they made a ſhift with ſalt water; to which, being accuſtomed from their youth, it did not hurt them. They ſay more, that the inhabitants go naked, though not quite; and that their way of being civil and ſaluting, is to give themſelves blows upon the temples, which is the ſame as with us the pulling off the hat or cap. At firſt they laughed at the fire-arms, till they ſaw one fall much wounded, which undeceived them, and convinced them that it was not only noiſe which proceeded from thoſe arms. Theſe iſlands are diſtant from Peru 1510 German leagues, which are longer than the Spaniſh leagues, though not ſo long as the Indian ones. There were found alſo other iſlands in the latitude of twenty-nine degrees, which perhaps were thoſe which at firſt they called the iſlands of Solomon. Others ſay, that there are others more to the weſt, oppoſite to Chile. Whoſoever is curious enough to know the particulars of all thoſe iſlands, their temperature, inhabitants, their good and ill qualities, may find them in the above-cited authors, who treat of them more at large; for my intention, it is enough to ſay what I have reported.

CHAP. III. — *Of the two Straights of Magellan and St. Vincent.*

THE Straight of Magellan received its name from that man, who eternized his own, by being the firſt who diſcovered and paſſed it. This was that famous Portugueſe captain, Hernando de Magellanes, whoſe intrepid ſoul going almoſt beyond the true limits of all ordinary valour, ſeems to have bordered upon temerity and raſhneſs, by engaging himſelf to diſcover a paſſage altogether unknown, and ſo narrow, that it was very dangerous for ſhips, being beſides in the fifty-fourth degree, which makes it very cold. This bold captain began to enter the ſtraight by the North-Sea the twenty-ſeventh of November, in the year 1520, and in twenty days, which was a happy paſſage, he entered the South-Sea; from thence he ſailed to the Philippine iſlands, where he was killed in one of thoſe iſlands called Matan, to which he went from another called Pezebu, to fight againſt the king of the firſt, becauſe he refuſed to ſubject himſelf to one of thoſe kings who had turned Chriſtian; engaging him with more courage than conduct, and ſo he periſhed by the great number of his adverſaries. His death

death was very much lamented, and he much miſſed in the diſcoveries of that new world; for, without doubt, if he had lived longer, he would have made great diſcoveries in the Terra Firma and iſlands.

To give a more certain account of this ſtraight of Magellan, I will make uſe of the memoirs of thoſe who have paſſed it, and left relations of it, who, as eye-witneſſes, were leſs ſubject to miſtake. And firſt I will give thoſe ſworn relations given in Caſtilla by thoſe who ſet ſail from the Corunna, by the Emperor Charles the Fifth's order, in ſix ſhips under the command of Fray Garcia Jofre de Loayſa, a knight of Malta, and born at Civedad Real.

They ſay in their report, that the ſaid ſtraight is a hundred leagues in length, from the cape of Eleven Thouſand Virgins, which is at the entrance of the North-Sea to the cape of Deſire, which is at the entrance of the South-Sea; and they ſay more, that they found in the ſtraight three great bays, of about ſeven leagues wide from land to land, but the entrances of them are not much more than half a league over; the firſt is about a league deep; the ſecond about two leagues; the third, they ſay, is encompaſſed with mountains of ſuch a height, that they ſeem to be in competition with the ſtars, and the ſun does not enter within them in the whole year; which was the cauſe of their enduring there an extreme cold; for it ſnows almoſt continually, and the ſnow never melting by the ſun-beams, it looked with a kind of bluiſh colour. They ſay, moreover, that the nights were twenty hours long; they met with good water, and trees of ſeveral ſorts, among which many cinnamon-trees; and that the leaves and boughs of the trees, though they appeared green, yet burnt in the fire as if they were dry; that they found many good fiſhing-places, and ſaw many whales, (ſome mermaids) many of the tunny-fiſh, ſharks, cods, great ſtore of pilchards and anchovies, very great oyſters, and other ſhell-fiſh. That there were alſo very good harbours, with fifteen fathom water; and in the ſtraights itſelf above five hundred fathom, and no where any ſands or ſhoals. They obſerved ſeveral pleaſant rivers and ſtreams, and ſaw that the tides of both ſeas came each of them above fifty leagues up the ſtraight, and meet about the middle of it with a prodigious noiſe and formidable ſhock. Though a Portugueſe captain, who had paſſed this ſtraight, told me, that theſe tides were only ſome high floods, which laſt a month, or thereabouts, as the winds blow; which makes the ſea ſometimes riſe to a great height, and at other times fall as much, leaving the ſhore dry for a great way; and the ebbing is ſometimes ſo faſt, that ſhips are left dry, as this captain's ſhip was, ſo that he was forced to dig his way out to get into deeper water. They found ſeveral other entrances in this ſtraight; but for want of proviſion they could not ſtay to ſearch them. They loſt one ſhip off the Virgins Cape; and they had ſcarce entered the ſtraights when a ſtorm blew them back to the river of St. Ildefonſo, and to the port of Sancta Croce, where they found ſerpents of various colours, and ſtones that were good for ſtanching of blood; all this may be ſeen in Antonio de Herrera, in the ſecond tome, dec. 3, and in the ninth book, fol. 335, and it does not diſagree with the other relation of Magellan's voyage, though this makes the ſtraighteſt part yet leſs, allowing it not above a muſquet-ſhot over, and from one entrance to another it reckons a hundred leagues, the land on both ſides being very rich and beautiful.

This is, in ſhort, the relation given in to the king. There are ſome other authors who neither make the ſtraight ſo long, nor do they make the narroweſt part ſo ſtraight; for ſome allow but fourſcore and ten leagues, or leſs, to its length; but yet it is probable, that the firſt give the moſt credible account, becauſe they examined it with ſuch care and punctuality, in order to inform His Majeſty. All agree in one thing, which

which is, in the good qualities of the ſea, land, and iſlands of the ſtraight, as well as of the ſhore on both ſides, and of the good parts that are in it, and of ſome particularly ſo ſecure, that the ſhips rid in them without being faſtened, being as ſafe as if they had been in a box.

Among the reſt the Hollanders celebrate much the twenty-fifth port, called the Famous; and it is ſo much ſo, that George Spilberg, their general, gave it that name, for the excellent reception they found there: they ſaw the whole earth about covered with various fruits of various colours, and of excellent taſte. To delight them the more, there was a fine brook of excellent water that fell from a high rock, and watered all the valley entering into the port; and beſides theſe five and twenty ports or harbours, there were many others in the remaining part of the ſtraight, which might be a third of it, all which were very remarkable.

There is a harbour called De la Pimienta, or the Pepper Harbour, for the ſake of ſome trees they found in it, whoſe barks had a moſt aromatick ſmell, and a taſte of pepper, ſomething more burning and quick than that of the Eaſt-Indies. When the Nodales paſſed this way, they gathered a great deal of this bark; and authors ſay, that when they brought it to Seville, it was ſo valued there, that it was ſold for ſixteen ryals, or two crowns a pound.

The ſame authors report, that they found cinnamon-trees, which bore good cinnamon; and in the ſecond narrow paſſage ſome others, that bear a ſort of black fruit, of moſt excellent taſte and ſavour. In other places they ſaw moſt beautiful woods and groves, pleaſant plains, agreeable valleys, intervals of great beauty, with high mountains; ſome covered with ſnow, from whence there deſcended lovely ſtreams; others all cloathed with greens of various ſorts; and in them they deſcried many animals going to and fro, ſuch as deer, oſtriches, and others, as alſo great variety of moſt beautiful birds of all colours; and among the reſt they killed one ſo large, that meaſuring one of its wings, they found it above a yard long; and they were ſo tame that they flew to the ſhips, and ſuffered themſelves to be handled: they found alſo another ſort of large birds, which they called ſea-geeſe, every one of which, after they had been plumed and pulled, weighed eight pounds of Caſtile; and they were ſo numerous, that the ground was covered with them, ſo that they killed what quantities they pleaſed. They ſaw another ſort of bird, much of the ſhape of a pigeon, all white, only with red bills, and red feet; all which were a grand entertainment to them as they ſailed along. They commend alſo the harbour, which they call Moſt Beautiful, where the city of St. Philip was founded; there they ſaw the traces of ſeveral animals, which uſed to come to drink in thoſe chryſtal fountains. After the third ſtraight place, there is to be ſeen a moſt excellent harbour, called the Shell-Harbour, by reaſon of the vaſt quantities of oyſters and other ſhell-fiſh that they found there, which ſufficed to feed the whole fleet ſeveral days, carrying away with them a good proviſion likewiſe for their voyage, all owning that they were better than thoſe of Europe.

There are found in the great canal of the ſtraight ſeveral iſlands, which are as eſtimable as the Terra Firma; they are generally in the wideſt part, where the ſea is ſeven or eight leagues over; the chief are thoſe of St. Lawrence and St. Stephen, otherwiſe called the iſland Barnevelt. Before they came to theſe, they found other iſlands, which they called the Pinguin Iſlands, for the great quantity of that ſort of birds that are bred there. There is another, called the Holy King's Iſland, which is in a river, which enters into the ſtraights, and they ſaw in it many ſeals. Others of theſe iſlands are named Sevaldo, from the name of him that diſcovered them, near which there were

were ſtore of the pinguin birds, and abundance of whales. After having paſſed the ſecond ſtraight, there are ſtill more iſlands, the firſt is called of the Angels, and is full of the birds we have mentioned. The ſecond is named the iſland of the Patagoons, or giants, becauſe they ſaw there ſome of them. Near the ſhell-port there are other eight iſlands; and a little before the entrance into the South-Sea, there are ſeveral other iſlands, which muſt be very little, for the ſtraights are there very narrow. Some may deſire to know, whether, beſides this entrance of the ſtraight of Magellan, there are any other, by which ſhips may ſail from the North-Sea to the South. Touching which, the relation of George Spilberg ſays, that there is one by the cape, which they called Prouvaert. Some Engliſh likewiſe, who have ſailed that way, are of the ſame opinion; for which they cite father Acoſta, of our ſociety, in his Oriental Hiſtory, tranſlated by John Hugh Linſcot, chap. 10. in the end: as may be ſeen in the already cited John and Theodore de Brye, who add, that many other authors do agree in this opinion; and that thoſe of Spilberg's fleet, before they came to the ſtraight, ſaw this opening on the north ſide; but they did not dare to go into it, becauſe they had expreſs orders to paſs the ſtraight of Magellan; and beſides, that which added to this reſolution, was the obſervation they made of the great force with which the waves met each other at this opening, inſomuch that the ſea ſeemed to boil.

This is all that I have met with in authors about this opinion, which even John and Theodore de Brye look upon as falſe; becauſe neither the Spaniards nor Dutch ever ſaw this ſecond canal; but rather that the whole land of Fuego is one great continued iſland, which they prove by the relation of the navigation made by the Nodales, who were ſent to ſearch for the ſtraight of St. Vincent, and who went round the Tierra del Fuego, without finding any ſuch opening, or any other than that of Magellan and St. Vincent; and yet I am of another opinion, and hold the firſt for certain; and this does not contradict the opinion of Spilberg, who does not ſay, that the opening he ſaw was on the ſouth, but on the north ſide, towards the land of Chile; and ſo, though the land of Fuego be an iſland, it does not follow that there may not be an entrance on the north ſide. But let us leave that to time to make out, and ſay ſomething of the ſtraight of St. Vincent, which is the ſecond paſſage from the North to the South-Sea.

CHAP. IV. — *The ſame Matter is continued, and the Uſefulneſs of the Commerce between Chile and the Philippine Iſlands is made out.*

IN the year 1619, the king ſent, in the month of October, the two caravals which I mentioned above, to ſearch the ſtraight of St. Vincent, becauſe about that time it was reported in Spain, that James Le Maire had diſcovered it. Theſe two ſhips ſailed to the bay of St. Gregory, which is near the eaſt entrance of the ſtraight of Magellan; from whence they ſailed along all that coaſt, where they ſaw and converſed with a ſort of giants, who were at leaſt the head higher than any of the Europeans; and they exchanged for ſciſſars, and other baubles, gold, which it ſeems, is the product of that country: after which they ſailed ſouth-weſt round the Tierra del Fuego, till they came to the mouth of this new ſtraight, which they called the ſtraight of St. Vincent; and before they entered it, they ſailed along the ſhore of this new diſcovered land, keeping it always on the right hand, their courſe eaſt-north-eaſt, as it tends.

They ſailed about thirty leagues; and not having diſcovered all that way, not as far as they could ſee, any opening or inlet, they returned to the opening of the ſtraight

of St. Vincent; and entering into it, went through it in leſs than one day, it not being above ſeven leagues in length; and being entered afterwards into the South-Sea, they followed the ſame land to the eaſt, and ſouth-weſt thirty leagues more; and ſeeing it was one continued coaſt, cloſed up with mountains of great height, they durſt not go any further, beginning to want proviſions; and ſo thinking that this land might reach as far as the Cape of Good Hope, they left it, and ſailed to the weſt entrance of the ſtraight of Magellan; which they entered, and went through to the North-Sea, returning that way to Spain, to give an account of what they had diſcovered, having made a very fortunate voyage, and not loſt one man, nor had any ſickneſs, all that climate being very like that of Europe, and particularly to the cold part of it. This made the king give order for the ſetting out of eight ſail more, to carry this way to the Philippine iſlands all the relief neceſſary, of ſoldiers, artillery, and tackling for ſhips, reſolving henceforward that they ſhould always go this way, as being ſhorter, eaſier, and of leſs charge and danger. This was the opinion of Michael de Cardoel, and the other pilots choſen for this expedition, who obliged themſelves to ſail to the Philippines (bating extraordinary accidents) in eight or nine months; for, having once paſſed the ſtraights, if they had the wind and currents favourable, they hoped to get to the Philippines in two months; becauſe from Chile to thoſe iſlands, there is no reaſon, as in other navigations, to wait for certain ſeaſons and times of the year; for all that voyage being to be made within the tropicks, there is no danger of winter; but one may ſail it at any time of the year.

The Dutch authors already cited, treating of this ſubject, add theſe words:—"In truth this is a great conveniency to mankind, to be able to go from Europe to theſe iſlands in ſo ſhort a time, with all the health and ſafety of the ſailors; it being otherwiſe in going by the Cape of Good Hope, where the diverſity of winds is to be obſerved, ſome of them being ſo contrary, as to hinder abſolutely the voyage; ſo that it laſts ſometimes fifteen or ſixteen months. Beſides, this courſe is ſo ſubject to diſeaſes, that often they bury half their men in the ſea, as happened to Girrard Reinſt, who was ſixteen months getting to Bantam, which is not above half way to the Philippines, and yet loſt a quarter of his men: Adrian Wreuter was nineteen months getting to Bantam, and loſt out of the ſhip, called the Fleſſingue, one hundred and ſixty-three out of two hundred: the ſame happened to the other three ſhips of that ſquadron." Thus far theſe Dutch authors; who add, that the ſhip Concordia, going the other way, arrived at the Moluccas without loſing a man. And if they ſay true, and make out that it is better to ſail this way to their Batavia, how much better is it for the Spaniards, who drive a trade with Peru and Chile, the diſtance being much leſs, and having for friends all the ports of Chile, if they would not go ſo high as Peru, which the Dutch have not? Neither would it be a ſmall advantage to exchange in thoſe ports the merchandizes of Europe with their product, which is ſo wanting in the Philippine iſlands, and all thoſe parts of the eaſt. Every one may find their account in this trade; the Spaniards, without running the danger of ſickneſs in thoſe unhealthy climates of Carthagena, Panama, and Puerto Bello, might find as much vent for the European commodities; Chile and Peru would have all goods from Spain much cheaper than they have them now by the Terra Firma; the charges then would be three times leſs; and, at the ſame time, they would help off the products of thoſe parts; as from Peru they might load corn, wine, and oil; and if they did not care to go ſo far, they might have the ſame things from Chile, and cheaper, beſides copper, hides, almonds, and other commodities proper to Europe: ſo that it is clear this would be a very advantageous intercourſe for the Philippines, who want all theſe commodities ſo much.

Neither would the trade of New Spain receive any damage at all from this; for thoſe countries could not have them from Peru and Chile ſo eaſily as from Europe; and ſo Spain would ſend leſs, only ſo much as is carried to the Philippines from New Spain, which cannot be much; for the charge of carrying thoſe European commodities from Vera Cruz, to be embarked again for the Philippines, is very conſiderable, it being at leaſt one hundred and ſixty leagues by land from the Vera Cruz to Acapulco, which is the port where they are to be embarked; after which, they have a navigation of three months; and then, there being not always conveniences of ſhipping in Acapulco, thoſe commodities are kept ſo long that they are ſpoiled; and it is ſeen by experience how little of this trade turns to account: but it would be otherwiſe, if theſe commodities were carried from Chile, ſince in two or three months, always in a temperate climate, they might ſail with a conſtant ſouth wind, which blows all the ſummer infallibly, and ſo bring the product of Chile in a good condition to the Philippines. This commerce, though it would accommodate all parties, yet it muſt be confeſſed, it would be moſt beneficial to Chile, which would thereby have more vent for its product, and acquire more people to cultivate its natural fertility.

There have been two obſtacles to this project, which have hindered its taking: the firſt is, the difficulty of paſſing the ſtraight of Magellan, becauſe it being ſo much elevated towards the pole, it cannot be paſſed but in certain months of the year, which, if thoſe who attempt it do not hit, they are in danger of periſhing, as in effect it has happened to ſome ſquadrons of ſhips, as I ſhall relate in the next chapter; though others have paſſed it very luckily in its proper ſeaſon, the ſtraight itſelf having, as we have ſeen, many good harbours and ſhelters for ſhips.

The ſecond obſtacle is the fame that keeps the port of Buenos Ayres from being frequented, (for elſe all the treaſure of Peru might be ſent that way;) and it is, that the courſe of trade is ſettled the other way, notwithſtanding the great charge the crown is at to have two fleets, the one in the South, and the other in the North-Sea, only to ſecure this paſſage; and that with the loſs of ſo many Spaniards' lives, that in the hoſpital of Panama only, there was buried, as they told me when I went that way in the year 1630, above fourteen thouſand perſons; and what muſt we gueſs then in the ports of Carthagena and Puerto Bello, which have been the ſepulchre of ſo many Europeans?

Notwithſtanding all theſe miſchiefs, this way is continued to maintain thoſe cities already founded in thoſe parts; though it is moſt certain, that the ſame end, of carrying the ſilver to Spain, might be attained by one only fleet, with leſs danger of the ſea. By that courſe the galleons would ſail always in deep water, and not run the hazards they do between Carthagena and the Havanna, between which places they are fain to ſound all the way, and keep the lead going, to avoid the many ſhoals that are in thoſe ſeas, and in the canal of Bahama afterwards: beſides that, the dangers of ſickneſs would be avoided; for the Spaniards find by experience, that at Buenos Ayres they are healthy, that being in the temperate climate correſponding to that of Europe.

And for the ſame reaſon the navigation between Chile and the Philippines is not put in uſe; becauſe the courſe of things being once ſettled one way, it is very hard to change them, though to a better. I ſhall not purſue this matter any further, becauſe it ſeems to touch the ſtate and government, which is not my deſign: perhaps time will bring all things to paſs; and that thoſe of Chile themſelves will venture to find out this vent for their product. All conſiſts in trying; for the advantages on both ſides would be ſo manifeſt, that the ſweet of them would ſoon make the way eaſy, and that trade would wonderfully enrich Chile and Peru, ſince they might bring back to thoſe

kingdoms all the commodities of China and Japan; and that without carrying any gold or ſilver, which might be preſerved all for Europe. Thus the greateſt part of this new world being enriched by its own product, the king's revenues will be the greater, as well as the returns in gold and ſilver the greater; and all things thus well accommodated, the ſervice of God, and the divine cult and worſhip would be better carried on.

CHAP. V. — *Of the Fleets; ſome of which have been loſt, and ſome have happily paſſed the Straight of Magellan.*

AMONG the fleets which have been loſt in the ſtraight of Magellan, the firſt was that of four ſhips ſet out by the biſhop of Placentia for the Molucca iſlands; which having got to the ſtraight with good weather, and being entered into it about twenty leagues, there roſe from the weſt a ſtorm, which blowing directly a-head, forced three of the ſhips aſhore, they not having room to turn or run before it; but all the men were ſaved. The fourth had better fortune; for going before the ſtorm, ſhe got out of the ſtraight; and when the foul weather was over, came into the ſtraight again, where the other ſhips were loſt, and found the men, who had ſaved themſelves on ſhore, who preſently made ſigns and cries to be taken on board; but they with hearts full of grief anſwered them. "What would you have? We cannot relieve you, for the proviſions we have on board are not ſufficient for us, and ſo we may fear to periſh all of us together." They could not ſay to them the other words of the Goſpel, "Go rather to thoſe who ſell," becauſe they were in a deſart country, where they had no remedy, but to ſend ſighs to heaven, accompanied with inconſolable tears and cries, capable of moving the ſtones themſelves. Thus they left them, purſuing their voyage, much afflicted to be forced to forſake them, and not be able to do any thing for them; but theſe are accidents and hard caſes belonging to the ſea-faring men.

It is not known to this day what has become of theſe men; only there is a tradition, that a great way within land, on the continent of Chile, near the ſtraight, there is a nation called Ceſſares, who were endeavoured to be diſcovered by Don Hieronimo Luis de Cabrera, governor of Tucuman, about eight and twenty years ago, with a good army raiſed at his own charge; but his diligence was in vain, as we have marked already, and told the cauſe of his miſcarrying. It is thought, and it is very probable, theſe Ceſſares may be deſcended from thoſe Spaniards who were ſaved in this ſhipwreck; becauſe it was poſſible, that ſeeing themſelves without any other recourſe, they might go on into the Terra Firma, where, contracting alliance with ſome Indian nation, they may have multiplied, and the fame of them may have reached the neighbouring nations, and ſo on to others. This is certain, that this tradition is much kept up, that there is in thoſe parts an European nation called Ceſſares. Some ſay, that there has been heard the ſound of bells, and they have founded cities where they live; but, in fine, there is no certainty of all this. A gentleman born in Chiloe, and who has been a colonel in thoſe parts, gave me in writing a relation of ſeveral traditions and informations of great numbers of people that inhabit the land within, and who have much gold. There has been made ſeveral attempts to diſcover them, though all have miſcarried for want of proviſions, or by other accidents, which in time may be remedied when it pleaſes God. And at this very time I have received letters, which acquaint me, that father Hieronimo de Montemayor, apoſtolical miſſionary of that archipelago of Chiloe, had entered into the Terra Firma in company of Captain Navarro, a man very famous

famous in thoſe parts; and that they diſcovered a nation, which it is thought are theſe Ceſſares, becauſe they are a nation of white complexion, and freſh cherry cheeks, and who, in their ſhape and diſpoſition of body, ſeem to be men of mettle; and that they had brought ſome of them along with them, to endeavour to inform themſelves of that which they ſo much deſire. This is all the father wrote at that time, becauſe the ſhip could not ſtay, and there is but one ſhip every year bound for thoſe parts; ſo he was forced to refer himſelf to the next conveniency, to inform me more particularly of the original and deſcent of this nation; ſo that this is all that at preſent we can ſay of this nation of the Ceſſares, which it is poſſible may come from theſe ſhipwrecked men; or elſe they may deſcend from ſome Dutch, who may have been ſhipwrecked in the ſame place, or thereabouts; and their complexion ſeems to fortify this conjecture; beſides, that they ſpeak a language which no body then preſent could underſtand; or there may be both Spaniards and Flemings. It is thought we ſhall not be long without knowing the truth, and ſo I continue my narration. The ſecond fleet which miſcarried in the ſtraight, was that which was ſet out about two and twenty years ago, under general Ayala, a gentleman of high birth and valour; who going from Spain to Chile, dealt with His Majeſty for a relief of men, which he was to carry through the ſtraight of Magellan, without landing any where elſe; but juſt as they were entering it, they were all caſt away, ſo as to this day there has not been any account of them, except of the vice-admiral's ſhip, under the command of Franciſco de Mandujava; for, having loſt ſight of the admiral in the ſtorm, ſhe was carried before the wind to the port of Buenos Ayres, where he landed the men, and marched them over land to Chile. I heard ſome of the men talk of this matter; and they uſed to blame the general very much, for having gone about to enter the ſtraight when the time of the year was ſo far advanced, particularly having been adviſed in Braſil, where he touched, to winter there, which he refuſed to do, for fear his people ſhould deſert him, and ſo he and they all periſhed.

Theſe accidents ſeem to have made this paſſage leſs practicable; but yet we know that many have paſſed this ſtraight with little danger, and ſome with great felicity. Eight fleets are mentioned by John and Theodore de Bry, as well Spaniards as foreigners, who have paſſed this ſtraight; and though ſome have had bad weather, yet there is no doubt but time and good obſervations may make it more feaſible; particularly there being ſo many good harbours and bays in this ſtraight, where ſhips may ſhelter themſelves, and let the ſtorms blow over.

CHAP. VI. — *Of the Province of Cuyo.*

AFTER having treated of the two firſt parts of the kingdom of Chile, we muſt ſay ſomething now of the third, which contains thoſe large provinces of Cuyo, which are on the other ſide of the Cordillera, towards the eaſt. We have already deſcribed their ſituation and extent, let us treat now of the nature of them. And to begin with their ill qualities; it is a wonderful thing to conſider that there being nothing between them and Chile, but the high mountains of the Cordillera, yet they are ſo different in their qualities. We have already mentioned ſome; but we may ſay, that as to their temperature, they are in every thing entirely oppoſite; for firſt, the heats are exceſſive and intolerable in ſummer; and for that, as well as for the vaſt quantity of bugs or punaiſes, which are there, ſome very ſmall, and others as big as bees, one can hardly ſleep a-nights in the houſes, and therefore the people all ſleep in their gardens and court-yards. There

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There are almoſt perpetual thunders and lightnings, and many poiſonous reptiles and inſects, though not ſo many as in Tucuman and Paraguay. There are likewiſe a ſpecies of moſquitos, or gnats, no bigger than the points of needles, and as ſharp in their ſting, though themſelves are almoſt imperceptible; they get into the hair of one's beard, and one cannot be rid of them any other way, than by killing them.

Theſe are the evil qualities of the land of Cuyo; let us now mention the good ones. The land is ſo fertile, that in many things it exceeds even the richeſt ſoil of Chile; the crops are better, the fruits larger, and of better taſte, by reaſon of the great heat, which ripens them more: there is good ſtore of corn, wine, fleſh, all ſorts of fruits, roots, and herbs of Europe; as alſo great quantities of olive-yards and almond-grounds; ſo that the only eſſential difference between it and Chile, is the many venomous animals, and the thunders and rains in ſummer; though to make ſome amends, if Chile exceeds in ſummer, Cuyo has the advantage in winter; for though the cold is ſharp, yet it is not with ſuch clouds, nor ſuch ſnow and rains, as in Chile; but rather the weather is ſerene, and the ſun beautiful and clear, without any dark weather, which makes it very temperate.

There is no ſea-fiſh in this province, it being very far from any ſea; but it has ponds, which are called the ponds of Guanacache, where they catch great quantities of trouts, as they call them, which are very big, like the Savalos of Seville, but much better without compariſon; for they have no ſmall bones, and are of a higher reliſh, and a very healthy food.

Beſides the fruits of Europe, this country has ſeveral very good of its own. The firſt is called Chanales, which are like filberts or ſmall nuts; only the difference is, that that which is to be eaten is not within, but on the outſide of the ſhell: the other is the Algaroba, of which they make bread ſo ſweet, that it nauſeates thoſe who are not uſed to it. All Tucuman, as far as Buenos Ayres and Paraguay, are provided from hence with figs, pomegranates, dried peaches, and dried grapes, apples, oil, and excellent wine, of which they have abundance, which they carry over thoſe vaſt plains called the Pampas, (where for many leagues together there is not a tree, nor a ſtone to be found,) in large carts, ſuch as they uſe here in Rome; and they are a caravan of them together, to defend themſelves from certain Indians, who are enemies, and often attack them by the way.

Some years ago, they began to diſcover here rich mines of ſilver, the fame of which drew people from Potoſi when I left Chile, becauſe they were reputed to be richer, and of more profit than thoſe of Potoſi, all proviſions being more abounding and cheaper too. Theſe mines were alſo ſaid to be in a plain country, where carts might come eaſily. They write me word likewiſe, that there have ſince been diſcovered gold mines of a prodigious richneſs. It is true, indeed, that in this matter of mines, there is a great difference between the aſſaying them in little parcels, or in great ones; for often the ore that promiſes much, yields but little, when the aſſay comes to be made in great. This is a common obſervation in mines; and if theſe of Cuyo do not prove extraordinary rich, there will hardly come any people from abroad to them, particularly from Chile, where they have already ſo many and good ones, of ſuch a known profit, and yet they do not work them, the people being more profitably employed in huſbandry, which turns to greater account.

I will give here an extract of a letter which I received in Rome this year from father Juan del Poço of our company, a perſon of great piety, and worthy of credit, who is at preſent in the college of Mendoça, the chief of all thoſe of the province of Cuyo, and it is thus:—"The greateſt news here, is about the mines which are begun to be diſcovered, which if it holds as they relate, it will be the greateſt thing in the world: they

they are of gold, which is ſeen among the ſilver ore: there are come very underſtanding miners from Potoſi, who cannot give over commending them. There come people from St. Jago to work them, and Captain Lorenço Soares is named for Alcalde Mayor of theſe mines."] There are others who write the ſame thing; and there is no doubt to be made, but that if they can have people, that country will be one of the richeſt of all the Indies; for its great fertility wants nothing but people to cultivate and conſume its product. This will make the three cities of that province, which are that of Mendoça, that of St. Juan, and that of St. Luis of Loiola, increaſe mightily, which ſince their firſt foundation have been at a ſtand, by reaſon of the neighbourhood of Chile, which has kept them down; many of the firſt inhabitants of Cuyo having left it to go to Chile, as being more temperate, and more abounding with the conveniences of life; for the ſame reaſon that we ſee in other parts moſt people flock to the capitals of a kingdom, as is evident in Naples and other great cities. But if the Spaniſh inhabitants increaſe as they have done hitherto, there will be enough for all theſe parts; and already ſome of St. Jago have ſettled, and married at St. Juan and Mendoça; neither can it be otherwiſe, for the people of Chile are beginning to be ſo ſtraightened, that they cannot have all the conveniences of being at large, and ſo are forced to ſeek them abroad.

And it is moſt certain, that the conveniencies of this province are very great; and their not appearing ſo, is owing only to their neighbourhood to Chile, in compariſon of which theſe countries appear a place of baniſhment, and is looked upon as the moſt rigorous that can be given any one in Chile; becauſe to ſay truth, the difference is very great, conſidering the proprieties of each place; but if we conſider Cuyo, without comparing it, it is not only a good place, but ſurpaſſes many others, where nevertheleſs the inhabitants think themſelves very happy, though wanting the abundance of Cuyo, where the fleſh is very ſubſtantial and ſavoury, and great abundance of game, as alſo of pork, turkeys, ducks, hens, and other tame fowl.

The wines are very generous, and of ſo much ſtrength, that though they be carried three or four hundred leagues over thoſe plains, and the intolerable heat of the Pampas, and that by oxen, yet they come good to Buenos Ayres and other places, and are preſerved with the ſame facility, as long as one pleaſes, without ſpoiling; and they are in ſuch quantity, that all the provinces round are ſupplied with them, nay, as far as Paraguay, which is three or four hundred leagues more. The bread is excellent, ſo is the oil, and all ſorts of legumes and gardening; the fiſh better than the ſea-fiſh; the flax and hemp as good as that of Chile; the materials for tanning very good; and, in ſhort, it has all neceſſaries for life, with as much advantage as any other country.

This being thus, and even more than I relate, what is there wanting to this land, or what are its blots? punaiſes, thunder, lightning, hail. And what other country has not ſome of theſe? Shall we ſay, becauſe God has exempted Chile by a ſingular providence from theſe things, that therefore Cuyo is an ill country? No, for then we muſt condemn moſt countries where theſe afflicting circumſtances are found. And though it muſt be owned, that in the ſummer the heats are great, yet they do not exceed thoſe of Tucaman, Buenos Ayres, and Paraguay; and they are inferior to thoſe of Braſil, and thoſe of Carajas, Carthagena, Puerto Bello, and Panama, as I myſelf have experienced in ſome of thoſe places. And theſe parts of Cuyo have ſome amends made them from the neighbourhood of the ſnow; for the city of Mendoça is not above a league from the Cordillera, which is full of it; and likewiſe the good qualities of the air do ſomething moderate the heat; for it is ſo healthy, that it never hurts any body by being in it,

it, which makes them ſleep in their gardens abroad, without any apprehenſion, except it be of ſome ſudden ſhower which does often happen in ſummer; for on a ſudden, though the heavens be clear and bright, it grows cloudy, and falls a raining with great fury; but this may be eaſily remedied; and likewiſe the thunders and thunderbolts might be avoided, which are the things which fright thoſe of Chile moſt, they being ſo little uſed to them; and therefore at the very name of Cuyo, they think the heavens are falling upon their heads, or that the punaiſes, and other naufeous vermin are never to leave them; ſo that no greater mortification can be propoſed to an inhabitant of Chile, than to go to live in Cuyo. And beſides all this, the vaſt ſnows which fall on the mountains, ſhut up the paſſes, and hinder all communication or intercourſe; ſo that in five or ſix months one cannot receive a letter, though thoſe two provinces are not above thirty or forty leagues aſunder, that is, the breadth of that chain of mountains called the Cordillera. This therefore is that which diſcredits Cuyo; and if it had been further off from Chile, it would have had a better name; but it is with that, as with two loaves, which though both good, yet if one be whiter and better, no body will touch the other, the beſt being always moſt pleaſing.

CHAP. VII. — *Of the Confines of the Province of Cuyo, and particularly of its Eaſterly Bounds, the Pampas, and of the River of Plata.*

THE confines of this province of Cuyo to the weſt, are Chile; and to the eaſt, the Pampas, or vaſt plains of the Rio de la Plata, and part of Tucuman; which reaching as far as thoſe of Rioca, and the mountains of St. Michael, with all the reſt as far as Salta and Jujuy, make the north ſide of it; and to the ſouth, it has the ſtraights of Magellan. All this continent is called the Eſcombradas, or plains without hindrance; for there is not ſo much as any ſtop to the eye; but it is like a ſea, and the ſun ſeems to riſe and ſet out of the earth; and at its riſing, it is ſometime that it gives but little light; as alſo it loſes ſome of its beams before it be quite out of ſight when it ſets. The way of travelling in thoſe plains is with very high carts, which they cover over neatly with hoops, over which are cow-hides, with doors to go in and out; and theſe are drawn by oxen: there are alſo windows to give a free paſſage to the air, and on the bottom one makes one's bed with ſo much conveniency, that often travellers ſleep out the whole journey, and feel not any of the inconveniences which attend it. Generally they ſet out about two hours before ſun-ſet, and travel all night, till it be an hour or two after ſun-riſing; ſo that a traveller juſt wakes when he comes to the baiting-place. This muſt be owned to be a great conveniency; becauſe one may alſo walk on foot ſometimes, in the cool, before one lies down, and ſo one comes merrily and eaſily to one's journey's end.

There is alſo another entertainment which helps to paſs the time pleaſantly, and that is hunting: and for this end ſome carry horſes empty, and dogs on purpoſe; and there is game enough both of hare and veniſon: for there are herds of Guanacos, of two or three hundred. The dog follows them; and the young-ones, not able to follow, are left behind, which the hunter knocks on the head with a club he carries, without lighting from his horſe, and returns to the carts loaden with veniſon, which ſerve for proviſion as well as entertainment. At other times they follow the partridges, francolins, or the bird called Quiriquincho. But to all this there are abatements and mixtures of trouble: the firſt is, the mighty heat in ſummer; for which reaſon, leſt the oxen ſhould be ſtifled with it, they travel in the night; and when they come to halt,

halt, or bait in the day time, it is in places where there is not ſo much as a tree, under whoſe ſhade one may reſt: nor is there any other ſhade than that of the cart, and ſome coverlet upon it; for to go into it, is like going into an oven. But this is not all the way, there being ſome pleaſant running ſtreams and rivers bordered with green willow-trees, which very much mitigates the fury of the heat. The greateſt inconvenience that I perceived in that journey, was the want of water; which is ſo great, that we were forced to provide ourſelves, when we arrived at any of theſe rivers, for many days journey; for there is no other, except ſometimes ſome plaſhes remaining of rain-water; and that is all green, and can ſerve only for the oxen: and yet this is rare too; for theſe are often dried up to mud, and then one is forced to double the day's journey, and march as far again; ſo that the cattle is almoſt dead with thirſt. I have ſeen ſometimes, on theſe occaſions, the oxen take a run as if they were mad or poſſeſſed; for they know by inſtinct, a league or two before they come at it, the places where it is, as if they ſmelled it; ſo there is no ſtopping thoſe that are looſe; and even thoſe who are at the yoke, make what haſte they can; and when they get to the water, they raiſe the mud ſo by their haſte, that they drink as much mud as water.

When this happens, while there is any of the water left that was taken at the river, and carried in carts, the misfortune is the leſs; but when that water is already ſpent, the people ſuffer extremely: for though moſt commonly ſome one man is ſent before to take up ſome water of the cleareſt, before the oxen trouble it, yet they make ſuch haſte, that that prevention moſt commonly miſcarries; and then we are fain to ſtop our noſes, and ſhut our eyes to drink, and divert even our imagination, if we can. And to all this there is no remedy, but from heaven, as it happened to me once, that it pleaſed God to ſend us a ſhower in our greateſt extremity, which filled ſeveral wells, and there was enough for us and our cattle, as alſo to carry away; for which we thanked the Divine Majeſty, acknowledging his great mercy to us in ſo preſſing circumſtances.

This ſuffering would not be ſo great, if there were any towns and villages in the way; for there are little lakes, by which they might ſettle, which, though ſome years they yield no water, yet it is to be come at by a little digging, and that not very deep; and if there were people in thoſe deſarts, wells might be made, or the rain-water gathered in ciſterns, as it is practiſed in ſeveral other places. But theſe plains are ſo vaſt, that they can hardly be peopled, being extended for ſeveral hundred leagues; and beſides, there being no trade ſettled of any importance in thoſe parts, there cannot be inns nor places of ſhelter ſettled; and ſo at preſent, whoever travels that way, muſt carry every thing; for when once one is ſet out, there is no addition to be made; and therefore all is to be provided, more or leſs, according to one's ability; and that muſt be at leaſt a fortnight's allowance, and ſometimes twenty or thirty days, till one comes to ſome inhabited place. This is the manner of travelling in the plains of Cuyo, and Tucuman, and the Rio Plata, where in many leagues one does not ſee a hill, nor a ſtone, nor a tree, but continual plains; and if, to dreſs your victuals, you have not the foreſight to carry ſome wood, all the remedy is to gather the cow-dung, which ſerves the turn very ill. In ſome places of this province of Cuyo, there are woods near the rivers, from whence may be had materials for building; and hard-by the Cordillera there is a ſort of tree that breeds incenſe. I brought ſome of it to Rome, and the druggiſts told me, that it was finer than the ordinary, conſumed in churches. There grows there alſo the herb called Xarilla, which is very hot, and a good medicine, as we have ſaid already. There are many others, of which I cannot give ſo particular an

account, as not having made any ſtay in thoſe parts; neither am I in a place where I can advantage myſelf of thoſe relations, that others might give me; and which may ſerve for larger hiſtories than mine, I pretending only to brevity. Therefore let this ſuffice for an account of the ſituation, ſoil, heavens, proprieties, trees, plants, fruits, metals, flocks, fountains, rivers, ſea-fiſhes, and birds, in all the three parts or diviſions of the kingdom of Chile. Let us now ſay a word of its inhabitants, the old Indians, who have poſſeſſed it all formerly.

BOOK III.

OF THE INHABITANTS OF THE KINGDOM OF CHILE.

CHAP. I. — *Of the firſt that peopled America, and their Antiquity.*

THE knowledge of the firſt inhabitants of the kingdom of Chile, depends neceſſarily upon that of the firſt inhabitants of America, which is not eaſy to be made out. If we ſhould take the opinion of the Indian Guancas, near the valley of Xavia, they would certainly affirm, that which is a conſtant tradition among the natives of Peru, and before they had any knowledge of our faith, and is, that many years before there were Ingas, who were the kings of thoſe parts, the country being very populous, there was a great deluge: (thus far it is well.) But then they add, that in the hollow rocks of the higheſt mountains, there remained ſome alive, who returned and peopled the earth afreſh; and the ſame tradition is received by the Indians of Quito in Collao. If this were ſo, the Indians of Chile might lay claim to the new peopling of America; for if any, their mountains were moſt capable of reſiſting the deluge, they being the higheſt that are yet diſcovered. There are other Indian mountaineers, who are leſs miſtaken; for they affirm, that none could be ſaved in the mountains, becauſe they were all covered with water; but that ſix were ſaved in a float they made. If they had ſaid eight, they would have hit upon the number which the apoſtle St. Peter ſays eſcaped with Noah in the ark which he built.

Antonio de Herrera, in the third tome of the General Hiſtory of the Indians, excuſes theſe errors of the Indians, ſaying, it was probable there was ſome particular deluge in thoſe parts, to which they might allude, becauſe all the nations of that world are agreed in this tradition. The true and natural excuſe is, that theſe poor wretches have not had the good fortune to ſee the chapter of Exodus, where they would have been undeceived; for there it is ſaid, that "out of the ark of Noah there was not left any living thing upon the earth, and that the water was fifteen cubits over the tops of the higheſt mountains." The other Indians, who talk of the ſix men ſaved on the float, may have had ſome tradition from their forefathers, who were nearer the time of Noah, about the ark; and as they are a people who have no books, becauſe they cannot read, whatſoever they might learn from their anceſtors, and retain in their memories, might by degrees be loſt, or diminiſhed; and ſo the deſcendants came to have the tale of the float and the ſix perſons, not examining how

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it poſſibly could be, that upon ſo ſlight a contrivance, which can hardly laſt three or four days in the water, thoſe people ſhould maintain themſelves for ſo long as the deluge laſted. As for the manner and time, how and when the deſcendants of Noah paſſed to people this new world, or how their generations have extended ſo far, it is a moſt difficult thing to make out; for the Indians being without written records, as other nations have, there is no diving by their memories into their antiquities, which even when they are committed to writing, uſe to produce variety of opinions about the origin and beginning of things. Beſides, there was in Europe, even among the moſt learned, ſo great an ignorance of all that regarded America, that it was judged ſcarce inhabitable, if it was at all; and ſo they could give us no light of a thing they had no notion of, or which they thought impoſſible; but after the diſcovery of this new world, people began to reaſon, and every one made his gueſſes or reaſonings as well as he could. Some have ſaid, with reference to what is hinted by Plato, in his Timæus, (as is related by our father Acoſta, in his firſt book of the New World, in the twenty-ſecond chapter,) that people paſſed from Europe and Africa, to certain iſlands; and ſo from one to another, till they came to the Terra Firma of America.

The ſame author advances ſomething more probable, in his nineteenth chapter; where he ſays, that ſuppoſing we all came from the firſt man Adam, and that the propagation of the ſpecies of mankind, after the deluge, was made by thoſe only who were ſaved out of the ark of Noah, it is not improbable, that the firſt inhabitants of America came to thoſe parts, not with deſign, or by their own induſtry, becauſe of the little uſe of navigation that was in thoſe days, and particularly through ſo great a ſea; but that they were caſt by ſome ſtorm on thoſe coaſts, as it happened ſince in its firſt diſcovery, as we ſhall ſee hereafter in its proper place. He brings, to prove this, the example of ſeveral ſhips, which, contrary to their courſe, have been driven to very remote ſhores. This is every day's experience, and will not ſurpriſe thoſe who know any thing of the ſtrength of the winds and currents in thoſe ſeas; and that which the ſame father Acoſta alledges of himſelf, that he had ſuch a paſſage, that in fourteen days he came within ſight of the firſt iſlands of the gulph of Mexico, going from Spain.

This, though probable, has yet a ſtrong objection againſt it, which is about the wild beaſts, ſuch as tigers, lions, wolves, and others of that nature, which could not be carried in ſhips, becauſe they were of no uſe to mankind, but rather miſchievous: and though ſome may anſwer with St. Auſtin, in his ſixteenth book *De Civitate Dei*, chap. 7. when he ſolves the difficulty how theſe animals came into iſlands, and ſays, that they might either ſwim thither, or be carried by hunters, or that they might be created a-new by God Almighty, as they were in the beginning of the world; which is the beſt ſolution, if it were as probable as it is eaſy to ſay. But firſt, there is againſt it the opinions of philoſophers, who will not allow any great animals to be propagated any other way than by generation. And beſides, if God, as without doubt he might, had created them a-new, what neceſſity was there for him to command Noah to take ſo many pairs of all living creatures, all male and female? which care ſeems ſuperfluous, if God deſigned to make a ſecond creation of all thoſe ſpecies after the deluge. It is more probable, theſe creatures might arrive at the iſlands ſwimming, and the birds flying, particularly to the neareſt iſlands; but this does not prove, that they could arrive at thoſe remote parts of America, there being ſuch a vaſt ocean, that it is not poſſible that either beaſts or birds ſhould have ſo much ſtrength as to ſwim or fly over it; for this reaſon he concludes in the end of the one and twentieth chapter, that the men, as well as animals, paſſed either by land or water to America, near

ſome part where it joins to the other parts of the world, either by the Terra de Bacalaos, or the ſtraight of Magellan, that is not ſeparated but by ordinary little ſeparations of water and ſea, which might be eaſily paſſed in ſmall veſſels, ſuch as were in uſe in thoſe antient times.

This is the author's opinion; which, as to the Terra de Bacalaos, carries with it only the probability of an ingenious conjecture, becauſe as yet that part of the world has not been diſcovered; but if in time it proves like the conjecture about the ſtraights of Magellan, it is all without any grounds; for, as we have already related, it is now made plain, that America on that ſide is entirely divided from the other parts of the world by a vaſt ſea. It is true, that to the eaſt it is not known yet how far that land runs, which is over-againſt the Terra del Fuego, and is on the eaſt ſide of the ſtraight of St. Vincent, otherwiſe called the ſtraight of Le Maire; for ſome think that it may run as far as the Cape of Good Hope, and ſo be ſo near that part of Africa, that men might paſs in ſmall veſſels from the one to the other. It is likewiſe uncertain, that the continent of America ever was nearer than it now is to any other continent, or that the ſea has ſince broke away part of either, to make the ſeparation wider, as we have obſerved it did in the iſland of Sancta Maria, which is ſuppoſed to have formerly been all of one continued piece with the firm land of Arauco; but theſe are all conjectures, and he alone knows the truth who created theſe men, and other animals of America, and by whoſe providence they paſſed to thoſe parts, for the great ends of his hidden ſecrets; to whom, with all veneration for his counſels, we muſt ſubmit the enquiry, why he has been pleaſed that that part of the world ſhould remain undiſcovered for ſo many ages, without any communication with thoſe parts where his divine light has appeared ſooner. Theſe are conſiderations for the good to make uſe of with thanks, for having been admitted to it; and confuſion of the wicked, who at noon-day are as much in the dark as if it had never dawned.

Peter Bertius, in his geography, as John and Theodore de Bry do relate, collects the antiquity of thoſe nations of America, from their moſt antient kings and lords, and from the ruins of antient edifices, and other memorable things; for this argues the largeneſs of time in which all this was done. Amongſt other things he mentions the report of one of their gardens belonging to ſome king, (which muſt be of Peru, who were always the richeſt,) in which all the herbs, and plants, and ſhrubs, with their trunks, leaves, and flowers of their natural proportion, were of maſſy gold; and in the houſes of recreation, there were all ſorts of animals made of precious ſtones, and ſome of feathers of various colours. They ſay beſides, that the Ingas, who were the emperors of Peru, were the richeſt princes in the world: and that they had ſo much gold, that not only the plate they eat in were of that metal, but all their houſhold ſtuff and furniture were of the ſame, to their tables, benches, cupboards, nay, to the ſtatues themſelves; a great deal of which fell to the Spaniards' ſhare when they conquered thoſe parts; but the beſt part was hid and concealed by the Indians, which to this day they keep undiſcovered, being in that way of ſecret intractable and extremely cloſe. Neither is it any wonder that thoſe princes ſhould uſe ſo much gold, ſince they were maſters of more of that metal than any others; being ſo beloved by their ſubjects, that whatever they had that was precious, they preſented it to them; and they were ſo inclined to hoard it, that whoever ſucceeded in monarchy made it a point of ſtate not to touch, but rather to increaſe the treaſure of his father; of which a great proof was the vaſt ſum which Atahualpa offered for his ranſom, and paid to the Spaniards for it, as we ſhall ſee hereafter.

Amongſt other precious pieces of gold work, authors make particular mention, and admire with reaſon, that chain which the king Guaynacapa, the eleventh king of Peru, cauſed to be made at the birth of his ſon Guaſcar., who was to inherit his crown, for each link of it was as big as the wriſt of a man, (as is reported by Gareilaſſo de la Vega, who had it from an uncle of his, an Inga alſo, who told him, when he aſked the bigneſs, as big as this, ſhewing his wriſt,) and as long as twice the length of the great place of Cuſco, which in all might be about ſeven hundred feet long. And the condator, Auguſtin de Varate, in his firſt book, chap. 14. treating of the incredible riches of that Inga, ſays theſe words: "Guaynacapa at the birth of his ſon, cauſed a great cable of gold to be made (as is atteſted by ſeveral Indians now alive) of ſo much weight, that two hundred Indians could but juſt lift it up from the ground; for the memory of which they gave the name of Guaſcar Inga to the new-born prince; for Guaſca ſignifies a cable; and the ſirname of Inga was added, as that of Auguſtus to the Roman emperors." Thus far this author: but this name, or word Guaſca, not being ſo decent in its ſignification for a prince, they added the *r* to it, and nevertheleſs eternized the memory of that rich chain.

The chiefeſt motive the king had to order this chain to be made, was, that the dances which were to be made at his birth, might be more ſolemn and worthy of his royal perſon; becauſe the manner of dancing of the Indians, is to take one another by the hands, and make a circle: and ſo moving two ſteps forward, and one backward, draw cloſer and cloſer to the king, to make their obeiſances; and the king cauſed this chain to be made, for them to take hold of, inſtead of taking hold of one another.

A great proof likewiſe of this antiquity of the empire of Peru, is thoſe two highways mentioned by Herrera; for being of that vaſt length, and worked with all thoſe conveniences for travellers, they could not be made but by length of time, and with a long continued labour. This is what I find of the antiquity of the firſt inhabitants of America, in which we may comprehend the Indians of Chile.

CHAP. II. — *Of the great Courage and Boldneſs of the Indians of Chile.*

THE Indians of Chile are famed by all who have writ of them, for the boldeſt and moſt valiant warriors of all the vaſt extent of the new world: it were to be wiſhed by us, that this had not been confirmed by woful experience, for then the kingdom of Chile would have been one of the moſt flouriſhing kingdoms of the Indies, without the continual wars which it has maintained for about an hundred years, without ever ceaſing, or laying down its arms. This is the more conſiderable, if we reflect, that the Spaniards having ſubjected, in ſo little a time, thoſe vaſt empires of Mexico and Peru, have nevertheleſs not been able, in ſo great a time, to conquer the Indians of Chile, ſons of the great Cordillera, from whoſe rocks they ſeem to borrow their untameable ſtrength and fierceneſs. Except we ſhould ſay with Friar Gregory of Leon, that this bravery comes from the fertility of the earth, which, as he ſays, and is true, does not need any thing from abroad. To which he adds, the birth of theſe people, who all their life tread upon ſo much gold, and drink the water which runs over theſe rich minerals, by which they participate of its good and generous qualities, as it is obſerved of thoſe who live at Potoſi, near that vaſt mountain of ſilver, who are ſo ſtout and haughty, as has appeared in the many revolutions that have happened there. Let this be as it will, all authors agree, that they are the top nation of America, though

though hitherto no one has treated purpoſely of this matter. There are now two hiſtories in the preſs, which will make out, by particulars, all that has been ſaid of this nation. Don Alonſo de Ereilla ſays enough, in his famous poem called the Araucana; but becauſe it is in verſe, it ſeems to leſſen ſomething the real truth; and yet abſtracting from the hyperboles and enlargings of poetry, all the hiſtorical part is very conformable to truth, he being a gentleman of great quality, and an eye-witneſs of what he affirms; for what he wrote was not by hearſay, but upon the very ſpot where the things happened; ſo that he might have had as many contradictors as he had witneſſes, who were preſent as well as he at what paſſed.

He dedicated his book to the moſt Catholick King, his lord and maſter; and preſenting to him with his own hand, when he came from Chile to Spain, it is to be preſumed he would not have dared to fail in the exactneſs of truth, for fear of receiving a chaſtiſement, inſtead of a reward, which he obtained for it. Let any read his prologue, in which, in a very good ſtyle, and in proſe, he gives a noble account of the valour of the Indians, and concludes his preface with theſe words:—"I have ſaid all this, as a proof and clear demonſtration of the valour of theſe nations, worthy of all the encomiums I can give them in my verſes; and beſides, there are now in Spain ſeveral perſons who were preſent at many of the actions which I here deſcribe, and refer to them the defence of my work on that ſide." Thus far this author, worthy of immortal praiſe for his incomparable book, which, though publiſhed above fifty years ago, and printed in Spain and Flanders, is yet continually reprinted; which ſhows the value the curious and the learned have for it. The Araucanos are indeed the chief ſubject of it; and yet what is ſaid of them may be extended to all the Indians of Chile, as we ſhall ſee in its proper place, when we ſhall treat of the wars they had with the Spaniards.

But before ever the Spaniards ſet their feet on their ground, they had given ſufficient proof of their bravery, which was invincible, to the Ingas, emperors of Peru, ſince with all their power they could never conquer them, though they endeavoured it, as being extremely inclined to enlarge their dominions; and they deſired it the more, for the fame of Chile, to which they ſent a powerful army, and which made ſome progreſs at firſt, ſubjecting ſome nations to extraordinary tributes. But as they purſued their point, and came to the valley of Maule, they met with the Promocaes, to whoſe ſuccour the Chilenos, who inhabited more within the country, were come, and forced the army of the Ingas to retire in haſte. Garcilaſſo de la Vega relating this more particularly, ſays,

That the Inga yn Pangue, the tenth king of Peru, came to the confines of his own kingdom, to a place called Atacama, to be nearer at hand to attend the conqueſt of Chile: and from thence firſt ſent his ſcouts through the fourſcore leagues of uncultivated country, which was between his kingdom and Chile, with orders to diſpatch a man, every two leagues, with an account of what they diſcovered; which they did, one meſſenger following another, and leaving in the way certain marks, whereby they that came laſt might guide themſelves. He firſt ſent ten thouſand men, under the command of General Sinchiruca, and two other colonels of his own kindred, not being willing to commit to any other's care ſo great an enterpriſe. They came within ſight of the valley of Copiapo, which is the firſt inhabited valley of Chile; with the inhabitants of which, the Peruvians began to ſkirmiſh, becauſe they had not admitted the embaſſy which they ſent them as from the Inga, to own him for their lord; and withal, having given notice of the reſiſtance they found to the Inga, he ſent them ten thouſand men more, with a new ſummons, aſſuring them, that his deſign was not to take their

country from them, but only that they ſhould own him as ſon of the ſun, and lord of all that was warmed and enlightened by him. Thoſe of Copiapo ſeeing this new relief to their enemies, and knowing that it would not be the laſt, becauſe the Inga yn Pangue was preparing another ſuccour, and being convinced that this acknowledgment would coſt them leſs than the blood that muſt be ſpilt in a long reſiſtance, they agreed to own the Inga as he deſired.

This was the firſt entrance of the Peruvians as far as Maule, which is one of the rivers of Chile, as has been ſaid already. By this time, the army of the Peruvians was fifty thouſand men, and deſiring to proſecute their conqueſt, they ſent their ordinary embaſſy to the nation of the Promocaes, who having already been informed of their invading their neighbours, were in arms to defend their country. The ambaſſadors of the Inga delivered their accuſtomed meſſage, proteſting, that their lord deſigned nothing more, than to be acknowleded as ſon of the ſun, and honoured accordingly by their ſubmiſſion. The Promocaes, who were reſolved to defend their liberties, made anſwer, "That the conquerors ſhould be the lords and maſters;" and ſo uniting all their forces, came on the fourth day, and preſented battle to the Peruvians. The Inga's generals, ſurpriſed at ſuch a courageous reſolution, ſent them a new ſummons, deſiring their friendſhip and peace, calling the ſun and moon to witneſs, that they came not to ſpoil them of their lands or goods, but only to oblige them to own the ſun for their God, and the Inga for his ſon and their lord. To which they received anſwer, that they came not to ſpend time in talking, or vain diſcourſes, but to fight manfully till they ſhould conquer or die; adding, that they might prepare themſelves for battle the next day, as it happened; and the Promocaes overcame that powerful army of the Inga's, ſo that they had no mind to try their fortune any more, but made their retreat, leaving the Promocaes in peace, and full poſſeſſion of their lands, which they had ſo bravely defended. Antonio de Herrera, in his third tome, and fifth decade, treating of the reaſon why thoſe of Chile refuſed to ſubmit to thoſe monarchs the Ingas, ſays, that it was becauſe of the great reverence with which they made their ſubjects treat them, as if they were gods, and approach them as if they were another ſpecies; which the Chilenians could not bear, their mind being too lofty and generous to ſubmit to ſuch a tyranny, which they conſtantly oppoſed; inſomuch, that though the Ingas had conquered the beſt part of that continent, yet the Chilenians never did yield to their power. Perhaps the neareſt provinces to Peru, ſuch as thoſe of Guaſco, Coquimbo, and Copiapo, did in ſome meaſure acknowledge their power, ſince they paid a tribute in gold; and for that reaſon, theſe provinces alone in all the kingdom of Chile, do ſpeak the common language of Peru, which is a very ſtrong proof of what I here ſay.

For the ſame reaſon that they reſiſted the Ingas, they did not care to have any king of their own nation, the love of their liberty prevailing againſt all the reaſons of ſtate, which might move them to have one monarch; neither did they fall into any popular form of government, or commonwealth; for their warlike temper did not afford patience enough for the phlegmatick debates, neceſſary for the union of ſo many minds. Thus every family choſe one among them to govern them. From this aroſe the Caciques, who are the ſovereigns among them, and by degrees had that power hereditary, and their children after them enjoy it, with all its rights.

But though every one governs independently his own diſtrict or juriſdiction, yet when the occaſion offers, that the ſafety of all is concerned, there is an aſſembly of the Caciques, and ſome of the elders of the people, who are men of experience, and are ſummoned after their way by particular meſſengers. In theſe councils they reſolve what

they

they think moſt convenient; which, if it be a caſe of war, either defenſive or offenſive, they chuſe the general, not one of the moſt noble of the Caciques, or the moſt powerful, but he who has the fame of the moſt valiant, and has beſt behaved himſelf on the like occaſion againſt their enemies; and when he is juſtly choſen, all the other Caciques obey him punctually. It is after this manner that they have preſerved themſelves ſo many years againſt all the ſtrength that has been brought againſt them. To make theſe aſſemblies, they chuſe out ſome very pleaſant place, field, or meadow; and thither they bring great ſtore of proviſion, and ſtrong drink, called Chica, which is inſtead of wine. Being all aſſembled, and well warmed with this liquor, and excited in their martial temper, there riſes up one of the moſt ancient, to whoſe lot it falls, to propoſe the buſineſs of that meeting; who with great eloquence (for in that they are very famous) opens the matter, and brings all the reaſons and motives of perſuaſion that he can. All are obliged to yield to the majority of opinion; and when the reſult is made, it is publiſhed with the ſound of drums and trumpets, and a mighty noiſe; but yet allowing every one the term of three days to reflect and conſider on what has been reſolved; after which, if they find no inconveniency, the execution is infallible, and they think of the means of bringing the buſineſs about by the moſt proper methods.

CHAP. III. — *The ſame Subject is purſued, and the Nobility of the Indians of Chile examined.*

ANTONIO DE HERRERA, in the place already cited in the laſt chapter, ſays, that there are ſome of the Indians reputed above the reſt as gentlemen; and then he adds theſe words, "Of this ſort have been, and ſtill are, the Indians of Chile." In which he ſays well; for if valour and the glory of arms make gentlemen, as may be ſeen in Andreas Tiraquello, in his book *De Nobilitate et Jure Primogenitorum;* and if many noble families do to this day derive themſelves from ſome great captain or famous ſoldier, the Chilean Indians having ſo often ſignalized their valour in fights, they may very juſtly be diſtinguiſhed from all the other Indians, and reputed more noble. In ſhort, they are the untamed Cantabri of America, who, like thoſe of Europe, defended themſelves, when all the reſt of it was enſlaved; and repulſed the conquering monarchs of Peru to the extreme confines of their provinces.

And there is one circumſtance more particular than under the Cantabrians, becauſe they had the advantage of their mountains, and the barrenneſs of their country, not ſo inviting to a conqueror; but in Chile it was otherwiſe: the richneſs of its mines, and its ſoil full of delicious valleys, and a clear and rich territory, having been always well known, the only valour and bravery of its inhabitants was then the defence of the country: theſe were the fortreſſes and walls of it; for without a bit of fortification of any ſort, or ſo much as one fire-arm, they obliged their powerful enemy to a ſhameful retreat. Indeed, this is a thing worthy of great admiration; yet not ſo much to thoſe who know how theſe Indians value themſelves upon being good ſoldiers, uſing themſelves to arms, even from their childhood; of which, it will not be amiſs to ſpeak a little.

When a child is ſtrong enough, they make it run up the rocky ſide of a hill, giving him that does it beſt, ſome prize or reward: this makes them very nimble and light; and I have ſeen them, in their feaſts and entertainments, run two and two for wages with wonderful ſwiftneſs; and thoſe who ſhew little diſpoſition to this exerciſe, are applied to follow day-labour, but the others they reſerve for war, not ſuffering them

them to take any other employments, but mind their arms and their horſes, that they may be perfect in all their exerciſes. To theſe they aſſign their poſt upon occaſion, according as each has behaved himſelf in thoſe which he has been in before; and they have in this no conſideration of gentility, interceſſion of others, or other motives, but that alone of a good performance, and the many proofs given by them of their courage and conduct in war.

The arms they uſe are pikes, halberts, lances, hatchets, maces of arms, bars, darts, arrows, and clubs; as alſo ſtrong nooſes to throw upon a horſeman, and ſlings. Their horſe fight with lance and buckler, which they have learned from the Spaniards, and from them they have had their horſes; for before their time, they had neither horſe nor iron, but they have a hard wood, which grows yet harder by being turned in the fire, and is almoſt as uſeful as ſteel. They have hard and ſtrong corſelets, back and breaſt, and thighs, arms, bracelets, gauntlets, helmets, morions; all theſe of a hardened leather, ſo prepared when raw, that it becomes by drying as impenetrable as any ſteel; and they are ſomething better, becauſe more manageable, and do embarraſs the body leſs, as being lighter; and ſo the man is more at his eaſe, and better diſpoſed in fight. Among them the pikeman may not be an archer; neither can any that uſes the mace of arms, uſe other arms; ſo every one beſtirs himſelf with the arms he is uſed to.

In forming their battalions, every file is of above an hundred men, and between every pikeman an archer, who are defended by the pikemen, who cloſe their ſhoulders together; and if their firſt battalion is broken, the ſecond relieves them with ſo much readineſs, that there ſeems not that any have failed; and ſo by the third and fourth following each other, like waves of the ſea, without any interruption; and no man forſakes his rank but by death. They always endeavour to have ſome bog or lake not far off for a retreat; for there they are more in ſafety than in the ſtrongeſt caſtle. Their volunteers go before the battalion, trailing their pikes with ſo much ſtate, and are themſelves ſo haughty, that, like Goliah, they challenge their enemy to meet them body to body; and they do the ſame to the Spaniards, giving themſelves great airs of pride. They march to the ſound of their drums and trumpets, having their arms garniſhed with all variety of beautiful colours, and themſelves adorned with great plumes of rich feathers, ſo that they appear very handſome and ſightly.

When they make any forts for their defence, it is of great trees interwoven with each other, and leaving in the middle a place of arms; and formerly within this fort they uſed to make another of thick planks. Behind this, they make a great ditch, covered over with plants and flowers, but underneath them ſharp ſtakes to lame the enemy's horſes; ſome they make deeper, that the horſes may remain there ſtaked through.

Many of them are ſubject to great ſuperſtitions and auguries, obſerving the omens, both before and at the time of their undertaking; but many of them laugh at thoſe obſervations, ſaying, there are no better omens than good blows, and ſtout laying about them, without fear of either ſteel, fire, or any ſort of death; and it is certainly ſo, that their firſt encounter is terrible, and as if they feared no one thing in the world. When they are drawn up, and ready to engage, there is ſilence made, and the general raiſing his voice, begins an harangue, ſo full of ſpirit, filled with ſuch warm incitations, and ſuch a lively action, that the cowardlieſt among them become like lions and tygers againſt their enemies. He lays before them the glory of victory, and the ſhame of being overcome, and made captives and ſlaves to their adverſaries. "Take notice," ſays he, "that there is now no medium between thoſe two extremes: are not you the

ſons and grand-children of thoſe brave men, who have fought ſo many battles, and ventured all to defend that country and liberty, for which we now fight? Shall we own that they exceed us in bravery, or that the enemies we encounter are ſuperior to thoſe whom they overcame? Had they leſs motives than we have? or do we hope for leſs glory? We muſt all die; and in the equality of that common fate, the only difference is dying nobly for our dear country, and the liberty of our wives and children; therefore rouze up that courage which you have inherited from your anceſtors, who never could endure the thoughts of that infamous yoke of ſlavery upon their necks. Courage then, brave men, as brave as any the ſun ſees; courage, for in that lies victory."

With theſe, and other ſuch words, and calling to mind ſome of their victories, they grow ſo warm, that raiſing a cry of war, they drive away all fear, and expreſs great deſire of engaging their enemies; which they do with ſo much fury and reſolution, that a battalion that ſtands their firſt ſhock is a very firm one. But we will treat further of this when we ſhall ſpeak of the battles they have had with the Spaniards, whoſe valour has ſet theirs in its luſtre, obliging them to give ſuch proofs as are worthy to be recorded in hiſtory. Let us purſue now the account of their natural qualities, independently from the reſiſtance which they have made to His Catholick Majeſty's arms.

The warlike ſpirit of this nation proceeds from their natural temper, which is cholerick and impatient, proud, arrogant, and fierce, very cruel in their revenge, cutting their enemies (when in their power) inhumanly to pieces, and wallowing in their blood. We ſhall relate a caſe hereafter, in which ſomething of this will be ſeen. They are ſtrong and robuſt of body, well proportioned, large ſhoulders, high cheſts, well ſet in their members, nimble, active, vigorous, and nervous, courageous and undertaking, enduring hunger, thirſt, heat, cold; deſpiſing all conveniencies of life, even their own ſmall ones, having little value for their very lives, when it is neceſſary to hazard them, either for glory or liberty; conſtant in their reſolutions, and perſiſting in a thing once begun with incredible ſteadineſs.

They are excellent horſemen, and upon a ſingle ſaddle-cloth, or without one, they are as firm as others in war-ſaddles: they will ride down the ſide of a hill, or a precipice, as if they were goats, with their bodies as ſtraight and as firm on horſeback, as if they were nailed to the horſe: they have no trouble with the baggage they want, for they carry but little with them; not but that when they march they have their little pack of flour of maize, a little ſalt, ſome Pimientos, or Guinea pepper, and dried fleſh; and this is enough to maintain them a good while. They need no other kitchen utenſils than a gourd or calabaſh, with which, when they come to a river or ſpring, they open their flour-bag, and wet a little with the water, and that ſerves them for drink; and for meat, when they put more of it with a little ſalt and pepper, this they call Rubul; and ſometimes they eat their meal dry, with ſlices of dried fleſh.

The great numbers of people which that country has maintained, may be collected from the people that the Spaniards found there at their firſt coming, which was about 200,000, more or leſs, according to the greatneſs of the diſtricts or territories, and their habitations, which never were in form of a city or town; for the Indians cannot endure any formal conſtraint, but love to live free in the fields; and every Cacique, or lord, governed his own vaſſals, who placed themſelves according to their conveniencies, ſome in one valley, and ſome in another; ſome at the foot of mountains, others on the ſide of rivers; ſome by the ſea-ſide, or on the top of mountains;

tains; but all under no other form of government, than the will of their lord, the Cacique, to whom they yielded a ready and prompt obedience with joy. Their houſes are generally of wood, without any ſtories, not very large, nor all of a-piece, but each room framed by itſelf, ſo that when they have a mind to remove and chuſe another ſituation, they carry away the houſe by pieces, or rooms, which ten or twenty men can eaſily carry. When they take it up, they clear the ground about it, and then at one cry, lifting all together, they get it up, and carry it chearfully away, every one taking hold by its pillars; and when they are weary they reſt awhile, and ſo on again. Their doors are of the ſame material, and they have neither hinges, locks nor keys, nor any thing under a lock or key, their ſecurity conſiſting in each other's fidelity, which they obſerve ſacredly towards one another.

Their furniture is very mean, they being a people that deſpiſe all conveniencies and ſuperfluities; inſomuch that that which is their natural way of living, would be high penance with any European nations: for firſt, as to their beds, they have neither quilts, nor ſheets, nor pillows, much leſs do they need curtains, pavillions, or alcoves. The hard ground is their couch, upon which they lay ſome poor ſkins; and for bolſter, they lay a ſtone, or a piece of wood, and double their cloaks to lay on it; and that is their higheſt contrivance of eaſe: they have one or two very coarſe coverlets, which they weave of a ſort of thread as thick as one's little finger. People that uſe ſo little about their perſons, may eaſily be preſumed to have no hangings, nor other ornament to their walls; they have no utenſil of gold or ſilver, though they have ſo much in their country; their plate is four or five diſhes, and ſome ſpoons of wood, or a ſhell from the ſea-ſide; a calabaſh or gourd to drink in; a leaf of a tree, or of maize, for a ſaltcellar. This is all the apparatus of their table, which is the ground, or at beſt a little bench, without any cloth or napkins, but only a little broom, upon which they wipe their hands.

Their meats are the moſt ſimple, and eaſily dreſt, without any incitements to gluttony, as in other nations; but yet they are taſteful enough, and ſuch as many of our Europeans like very well. They eat little fleſh; and before the Spaniards came among them, they had neither ſheep, goats, nor cows, no, nor hens: they uſe theſe only at their great feaſts. Their ordinary diet is of maize, variety of fruits and herbs, and moſt commonly gourds, or a ſort of beans, which we call Frizoles. They did eat fiſh; and the game they hunted, particularly a ſort of ſmall rabbits, which they call Degus; and ſince the coming-in of the Spaniards, they eat beef and mutton, of which there is great abundance.

Inſtead of wheat bread, which they had not before the Spaniards brought it, they eat maize boiled in water, juſt as rice in the Eaſt Indies. This maize is, and always has been the general nouriſhment of the Indians of America; and is not only their meat, but their drink, which they make of the ſame maize, toaſted and ſteeped in water, and then boiled, and ſet by; and that is their Chicha, or wine, which they make alſo of the fruit of other trees.

Their way of making flour is very different from ours: they firſt toaſt their maize in great platters of earth; theſe they ſet upon the fire full of ſand, which, when it is very hot, they take off; and putting the grains of maize to it, ſtir them about very faſt with a kind of broom: it is ſoon toaſted. When done, they take it out, and put in more, till they have done enough to make flour. This they grind between two ſtones, thus: they have a ſtone fixed in the ground, of about the ſhape and bigneſs of a ſheet of paper, and ſo hollowed, as another ſtone of an oval figure

figure may play upon it: this the Indian woman takes with both hands, and being upon her knees, makes it play upon the other, putting, from time to time, with her left hand, the maize between the two ſtones, ſo as to ſupply what falls away, and that the mill do not ſtand ſtill. The flour falls forward into a ſort of box, as it does in our mills, and almoſt as faſt, comparing the ſtrength of a woman to that of a ſtream of water. She can do enough at once for the maintenance of her family; and make a proviſion too for a journey or a voyage of her huſband or ſon to the wars. This is the proper buſineſs of the women; and it would be a ſhame for a man to employ himſelf in it, or in any other houſehold buſineſs.

CHAP. IV. — *Of the ſame Subject.*

WHEN the Indians are ſick, they change little of their ordinary way of living, and they never have a better bed. Their way of letting blood is ſafer than ours; for it is not with a lancet, which may either fail to draw blood, or go too deep, and lame the arm, if the ſurgeon be not very ſkilful; but with a ſharp flint, fixed at the end of a little piece of wood, ſo faſt, that there is juſt enough left out to cut the vein, and no more: this they apply to the vein after they have made a bandage, as we do, and ſtriking a little ſtroke upon it, the blood never fails to come, in greater abundance than our bleedings are. This is all they need a ſurgeon or barber for, they themſelves having no beards to ſhave, and the little hair they have, every one pulls out; and they take it for an affront to look hairy. They have pincers, which they make of cockle-ſhells, and always have them about them, uſing them from time to time in converſation; they thinking it as honourable to be without that, which other people nouriſh, comb, and take care of; which is a good conviction of the variety of opinions of mankind, about what is, and is not honourable. As for their hair, they let it grow juſt below their ears, and no lower, and ſo need no barber to cut it, but do every one help the other to keep the ends of it even.

Their manner of cloathing themſelves, (though of various and very beautiful colours, which they give to the wool that they weave their cloaths of,) is very plain and ſimple: they have no lining to any of their cloaths, neither do they wear one under another: their drawers come down to their knees, open and looſe, and it is upon their naked body, for they uſe no ſhirts: they have a ſort of waiſtcoat, which they call Macun, and it is made of about a yard and a half of ſome woollen ſtuff, which they leave open, ſo as to put it over their heads, and then they gird it with a girdle: they have alſo a kind of cloak or mantle, which they call Chomi, which they put on when they go abroad: they have their arms and legs naked, and on their feet they have a ſort of ſhoe, which they call Ojota, and is like the rope-ſhoes the Spaniards wear: they wear nothing on their heads, but a kind of circle of wool, of various colours, with its fringes hanging down like a cap; which they ſtir or pull off in ſhew of reſpect, as we do our hats.

In their feaſts, balls, and rejoicings, though they do not change the form of their cloaths, yet they have a richer ſort, of finer wool, and richer colours: they put about their necks ſome chains of ſhells, which they gather by the ſea-ſide; theſe they call Nancas: others put ſnail-ſhells, ſtrung upon a ſtring, about their necks; and thoſe of the ſtraights of Magellan have pearls very well wrought, and of great artifice, as is affirmed by the authors already cited; and on their heads they put a kind of garland,

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not of flowers, but of wool, dyed of ſeveral beautiful colours, to which they hang fine little birds, which they eſteem, and on each ſide they have a plume of high feathers, either white, red, or blue, and about half a yard high.

Their way of dancing is with little jumps, and a ſtep or two, not riſing much from ground, and without any capers, ſuch as the Spaniards uſe: they dance all together in a ring, round a may-pole or ſtandard, which one of them holds in the middle as an enſign; and near it are all the bottles of their wine, of which they take now and then a ſup while they dance, drinking to one another; for it is a cuſtom among them never to drink alone any thing that is given them: he that begins takes a ſup, and then he that he drinks to pledges him, and gives the cup to another, and ſo to a fourth, till it be empty; and yet one has not more than the other; for what this man does for that, that man does for this; and ſo at laſt they come to be ſo equally ſhared, that at the end of the entertainment, they are all alike drunk, and laid down; for they drink as long as they can ſtand. But this is not eaſily brought to paſs; for beſides what they drink in the day-time, they will often paſs all night at it, without leaving off, ſinging and dancing to their drums and flutes. The women, as more baſhful, do not enter into theſe dances, except ſome one or two, when the wine has got into their heads, and then too they do not enter into the ring with the men, but dance by themſelves. Few of them get drunk, ſo as to loſe their judgment; ſo they are upon their guard more, to mind that the men do not quarrel, and hurt one another in their drink. Their flutes, which they play upon in theſe dances, are made of the bones of the Spaniards, and other enemies, whom they have overcome in war. This they do by way of triumph and glory for their victory: they make them likewiſe of bones of other animals; but the Indians of war dance only to theſe of their enemies.

Their way of ſinging is, all together raiſing their voices upon the ſame note, without any difference of parts or meaſure; and at the end of every ſong they play on their flutes, and a ſort of trumpets, juſt as we do on our guittars in the Paſſacalles. This they repeat ſo often, and ſo loud, that one may hear them at a great diſtance; for in theſe feaſts, they are very numerous. Thoſe who are not engaged in dancing, ſit together in ſeveral companies, talking together upon paſt occurrences, and ſtill warming themſelves with their wine; and then they begin to recollect the injuries they have received from one another, and ſo refreſhing the memory of old conteſts and enmities not revenged; and this makes them break out into new animoſities, and ſometimes kill one another upon little provocation.

The women as well as the men have their arms naked, but no other part about them; for though they go barefoot, yet their cloaths, which are very long, cover them from head to foot, though in ſome places they wear them ſhorter: this is a plain ſort of mantle, cloſe to their bodies, without any linen underneath; this they let fall to their feet, and having faſtened it on their ſhoulders, gather it in plaits, and ſwathe themſelves from their waiſt to the breaſts with ſome fine coloured woollen ſcarf, of about four fingers broad, and ſo long, that it takes ſo many turns about their waiſt, as to keep their bodies as ſtraight as any: this is all their dreſs within doors.

The Indian women of the better ſort, that live in towns among the Spaniards, have learned the uſe of ſmocks and waiſtcoats under their mantles, but of no other thing; and one cannot affront an Indian woman more, than to offer to put her on head-cloaths, or necklaces, or ſleeves, or gloves, or any of thoſe ornaments which the Spaniſh women uſe; and much more if they oblige them to put any paint upon their faces; nothing of

of this kind could ever prevail upon them, though born and bred among the Spaniſh women; and to talk to them of it, even to thoſe among them who love to be fine, would be like giving them a cut over the face, ſo great a horror they have for any thing that is ſo very contrary to their ancient cuſtoms. They wear nothing on their heads, but their hair plaited behind their ſhoulders, and divided handſomely upon their forehead over their eye-brows, and have locks which cover part of their cheeks; ſo their face is handſomely and ſimply adorned, without any artifice. When they go abroad, they put upon their ſhoulders another half mantle, ſquare, and faſtened before with a bodkin, or crotchet, which anſwers the two others on the ſhoulders; and thus they go abroad with their eyes fixed upon the ground; for they are naturally very modeſt honeſt women.

This manner of cloathing themſelves, with ſo much ſimplicity and plainneſs, as well in the women as the men, with ſo little pride and vanity in their houſes, does not much encourage artificers, who have little to do; and by that means there are the more men of war, which is the thing in which theſe men place their honour and felicity, as other nations do in the ſumptuouſneſs of palaces and furniture, or in other riches and eminences, either of arts or learning: of all which theſe Indians never had any notion; and yet they learn them eaſily, when they are taught them, and to a great perfection. They can neither read nor write among themſelves; but as to their way of remembering and keeping account, they have their Quipoes, which is a ſort of ſtrings of different bigneſs, in which they make knots of ſeveral colours, by which they remember, and can give an account of things committed to their charge. With theſe they will give an account of a great flock, and tell which have died of ſickneſs, or other accidents, and which have been ſpent in the family, and for the ſhepherds; and they will tell every particular that happened in ſuch and ſuch occaſions, and of what they did and ſaid. When they go to confeſs, theſe Quipoes ſerve them to remember their ſins, and tell them with diſtinction and clearneſs: they have beſides excellent memories of their own, and do remember things of very ancient date, juſt as if they had happened but a little while before; and when they begin to talk them over, (which happens generally when they drink, and begin to be warmed with wine,) it is wonderful how they will repeat things paſt, with all their circumſtances, and particularly affronts and injuries that have been done them, or their anceſtors, refreſhing the memory of things that ſeemed to be quite forgotten. For proof of the care they take to keep the memory of remarkable paſſages, I muſt relate here what I learned from Father Diego Torres Bollo, a very extraordinary man, both for holineſs of life, and ſkill in government.

This great man returning from Rome (whither he had been ſent as procurator of the province of Peru) to found the province of Quito, he ſaw in a place where four ways met, an Indian, who, to the ſound of a drum, was ſinging a great many things all alone in his own tongue: the father called one in his company, who underſtood it, and aſked him what that Indian meant by that action; who told the father that that Indian was, as it were, the regiſter of that country, who, to keep up the memory of what had paſſed in it from the deluge to that time, was bound every holiday to repeat it by the ſound of a drum, and ſinging, as he was then doing. He was moreover obliged to inſtruct others in the ſame way, that there might be a ſucceſſion of men to do the ſame thing after he was gone; and that which he at this time is ſinging is, that in ſuch a year there had been there a white man called Thomas, who did great wonders, preaching a new law, which in time was loſt and forgotten, &c. And thus we may ſee the manner by which the Indians ſupply the want of books and writing.

The

The women of Chile are ſo bold and manly in their courage, that when it is neceſſary, and that there is want of men, they take arms, and behave themſelves as if they were men. They play likewiſe at a very active game called La Chueca, wherein the men ſhew their greateſt agility and nimbleneſs, each ſide ſtriving to get a ball from the other, and carry it to the mark with crooked bandy ſticks. They are about forty or fifty on a ſide, who place themſelves in different poſts, ſo as to be uſeful one to another, and drive away the ball from the other party; and when it happens that two of different ſides are at it together, it is a pleaſure to ſee them run, the one to forward it with another ſtroke, and the other to get before him and hinder him from ſtriking it, that he may drive it back to his own ſide. This is a ſport much to be ſeen, and generally it has many ſpectators to ſee the end of the play, which often laſts a whole evening, and ſometimes is forced to be put off to another day; ſuch contention there is to win theſe prizes they play for.

The ſtrength and boldneſs of the women comes from the little tenderneſs they are bred with, for they avoid neither heat nor cold; and in the coldeſt winters, when birds are killed with cold, they waſh their heads in cold water, and never dry their hair, but let it remain wet, and dry itſelf in the air; and as for their children, they waſh them in the rivers, when they are yet very young; and when they are brought to bed, in a very little time they are about the houſe, as if it were not they, but ſome other woman that had lain in.

If the women behave themſelves thus, what may be expected from the men? It is a wonderful thing how little they fear weather, though in the midſt of winter; and to ſee an Indian, with that ſimple habit we have deſcribed, his head bare, without hat, or any other covering. I have ſeen them in this condition endure mighty ſhowers, which wet them all over, and came out at their breeches, and yet laugh and not value that which to others would have been inſupportable.

I remember, upon this occaſion, what was ſaid by a Spaniſh gentleman of a merry humour, to one newly come from Europe, who, with great charity, was pitying theſe poor Indians for their ſufferings in winter, which in that country is very ſevere. The gentleman aſked the good father what he had to keep his face from the cold? To which he anſwered, nothing, becauſe every body's face was uſed to the weather. To which the gentleman replied, theſe Indians are all face; for from their infancy they have no defence againſt the cold. Who is it that pities a trout, or other fiſh, for being in the water, becauſe they are bred in that element? the ſame may be ſaid of theſe Indians, who are like fiſhes, and are bred to all that hardſhip; and ſo we need not wonder at it. By theſe means they are ſo hardened, that a wound which the braveſt Spaniard would take his bed for, does give them ſo little trouble, that I have ſeen them go about without minding it. I have known them have a broken head by accident at play, and all they do is to waſh it in cold water, never leaving their employment or buſineſs; and with this, and the application of their own herbs, which, indeed, are of great virtue, they are ſoon well; but the excellency of their own conſtitution helps not a little to their cure in wounds, as well as all other diſtempers, out of which they get well with a great deal leſs time and care than the Spaniards.

CHAP. V.—*Of other Qualities proper to the Natives of Chile.*

FROM this ſtrong conſtitution comes the admirable patience of their minds, and the little ſenſe they ſhew of that which amongſt us Europeans would be a great mortification. That which happened between an Indian and Father Lewis of Valdivia is admirable upon this ſubject. The Indian came to confeſs to the father; who, to make him enter into a penance for his ſins, ordered him to wear a cilice, or hair-cloth, upon his ſkin: it was a very hard one, and ſuch as would have puniſhed one of us ſeverely. The Indian put it on, and about a year after, there was a proceſſion of the holy ſacrament, at which he danced, and ſeeing his confeſſor in the church, he left his dancing, and came to him ſaying, "Look here how I have preſerved what thou gaveſt me a year ago," and ſhewed it him upon his naked ſkin. The father was aſtoniſhed to ſee, that what he gave him to mortify him, was turned to an ornament; and aſking him how long he had worn it, was anſwered by him, "I have never left it off one minute ſince thou gaveſt it me;" and ſo returned to his dancing, ſhewing his companions the preſent the father had made him, as pleaſed with it, as if it had been a gold or ſilver brocade; and ſo far he was from taking it for mortification, or feeling its roughneſs, that he wore it for a favour given him by his father confeſſor.

Theſe Indians of Chile are the faireſt complexioned and whiteſt of all America; and thoſe of the coldeſt countries are the whiteſt, as we ſee in Europe; but the very antipodes of Flanders never came to be ſo white as the Flemings; and among all the Chilenians, I do not remember a red-haired one; for they all, both men and women, have black hair, and that very rough, and hard, and thick; inſomuch that the meſtitos, or mungrel breed of a Spaniſh man and Indian woman, are known and diſtinguiſhed by that from the children of a Spaniſh man and Spaniſh woman; and this will laſt to the ſecond and third generations before it ſoftens. There is little difference in any thing elſe, either of ſhape, feature, or diſpoſition; nor in the manner of ſpeaking, or ſound of the voice; and as for the language, not only the meſtitos, but the Indians bred among the Spaniards, are as ready at the phraſe and turn of the Spaniſh tongue, as any Spaniard. I have made experience of this often in confeſſing them; for the confeſſionary is ſo turned, as the father-confeſſor cannot ſee the woman that enters to confeſs. It happened to me often to have an Indian woman come in after a Spaniſh woman, and I could not find any difference, till ſhe herſelf, finding I uſed her with that diſtinction and civility due to Spaniſh ladies, would humbly tell me ſhe was but an Indian.

The conſtitution of theſe people is the cauſe that time does not make ſo ſtrong an impreſſion on them, as on us; and they bear their years mighty well, turning grey very late, at three ſcore or thereabouts; and till then they look like young men. When they are over white, or have any baldneſs, you may gueſs them at about an hundred: they all live long, and particularly the women; and when by age they loſe their judgment, they ſeldom falter in their memory, which laſts them to their dying day, even to remember all the particulars of their young days from their infancy. Their teeth and eyes are ſo good, that they ſeldom loſe either; and, in ſhort, all the infirmities of old men, which are the forerunners of death, come to them later than to the other nations. But yet, if they happen to go out of their own country, they loſe all their vigour, as we experience daily in our priſoners of war; who being ſold to Peru, as ſoon as they feel the heat of the tropic, they fall ſick, and moſt of them die: and this is no more than what happens to the Spaniards, when they come from

their

their own climate to Porto Bello, or Panama; nay, the Spaniards born in Chile venture their lives that go to thoſe countries that are between the tropics.

From this experience the Indians have of the hot countries, comes the great reluctancy they ſhew to go out of their own, and the reſentment they expreſs againſt thoſe who carry or ſend them abroad: and it is not to be imagined the ſtrange and raſh contrivances they have to make their eſcapes from Lima; for though they have above five hundred leagues to go to their own home from Peru, yet they undertake it, and moſt commonly compaſs it, through a vaſt number of dangers and inconveniences. For firſt, they are forced to go all along by the ſea-ſide, by which one may gueſs how much they go about, ſince they fetch the compaſs of all the bays and nooks, and double all the capes.

The next inconvenience which they meet with, is want of food; for they dare not enter any town, or inhabited place; ſo they are reduced to feed on cockles and other ſhell-fiſh on the ſea-ſide, which is no very good nouriſhment. The third difficulty is the paſſing of ſo many and ſuch ſwift rivers.

The fourth inconvenience is the want of water to drink; for it is not poſſible, that in ſo great a journey they ſhould not ſometimes miſs of freſh water to quench their thirſt. All theſe difficulties, and many others, which are obvious to travellers, are overcome by theſe Indians, by length of time and patience; and they get at laſt to their own country, and are out of ſlavery, not by the means of gold and ſilver, but by the bravery of their minds.

The boldneſs of ſome other Indians was yet more remarkable: theſe were carried in a ſhip to be ſold as ſlaves at Lima; by a Portugueſe gentleman of the Habit of Chriſt, who was going about things belonging to war, at the time that I went the ſame voyage: this navigation is made commonly in ſight of the coaſt, more or leſs, according as the winds ſerve; but ſtill they keep a good way out at ſea, for fear of the rocks. Theſe Indians reſolved among themſelves to throw themſelves into the ſea, to avoid this ſlavery; and one day, when they found the ſhip in a proportionable diſtance to the ſhore, ſo as they durſt venture to truſt to their ſwimming, they got looſe very dexterouſly from their fetters, and ſlid, without being perceived, down by the ſhip's ſide into the ſea; and when they miſſed them they were out of ſight, and ſo it was in vain to follow them. Among theſe priſoners there was an old man, who either becauſe he was not truſted by the others, or becauſe they had not the opportunity of acquainting him with the deſign, he not being ſhut up with them, but having the liberty of the ſhip as an old man, remained behind after they were gone. This Indian began to think of the thing, and to weigh with himſelf how his companions had undertaken and performed an extraordinary action; he reflected how they had arrived at their own land, and among their friends, who perhaps were inquiring about him, and that every body deſpiſed him as a coward, and a man of little ſpirit, ſince he had not been able to overcome the adverſe fortune which the others had conquered, but had ſubmitted to it: he repreſented to himſelf the welcomes and joys which their friends expreſſed, and the feaſts and entertainments made for their return, and the embraces and careſſes which they received from their relations. All this, I ſay, made ſuch an impreſſion on his mind, and raiſed ſuch an emulation, that he could not bear the reproaches he made himſelf, particularly ſeeing himſelf without a remedy. At laſt, after much thought and penſiveneſs, he came to a reſolution, which was, to do ſomething which ſhould be bolder than what his companions had performed, and that in the manner of doing it; for he reſolved to do it by day, and in the ſight of all the Spaniards; and for a beginning, he deſigned to kill his maſter, not in the night, and without

without witneſſes, as he might eaſily have done, but upon the deck, in the ſight of all thoſe in the ſhip, to get himſelf a greater name of bravery. To this end, he took one day, a great knife in his hand, and fell upon the captain; and having wounded him in ſeveral places, with as much precipitation as he could, leaped overboard with ſo much ſuddenneſs, that he ſlipped away from thoſe who endeavoured to ſeize him. It is to be imagined they were all wonderfully ſurprized at the reſoluteneſs of the action: they immediately brought the ſhip to, and put out the boat in all the haſte that could be to follow the Indian, who, ſwimming like a fiſh, was already almoſt out of ſight; but they overtook him, and bid him yield himſelf a priſoner, ſince he could not eſcape; and finding him ſtill endeavour to get away, they ſtruck at him with their launces, but he dexterouſly avoided all their ſtrokes with great preſence of mind, diving and appearing again where they leaſt expected him. Upon this they fired upon him, and wounded him in ſeveral places; but neither then did he yield, nor would ever have had a thought of it, but the loſs of blood taking away his ſtrength, had made him unable to get away, ſo they brought him almoſt expiring to the ſhip, having more valued death with the reputation of a brave man, than life with the infamy of a coward, and the loſs of reputation among his own people. This fact does not only ſhew the bravery of the nation, but likewiſe their great averſion to go out of their own country, and how heavy a yoke they think ſubjection to be; and we ſhall ſee hereafter how much they have done to defend their beloved liberty.

Now let us ſpeak of ſome other cuſtoms theſe Indians have. They ſolemnize their marriages their own way, and in a very contrary manner to that of the Europeans; for as to the portion, the woman does not provide it, but the man; and neither of them enjoy it, but it paſſes to the propriety and uſe of the father of the young woman; ſo that the huſband has a charge upon him of maintaining his wife without any help; nay, rather with leſs ability, for he parts with ſome of his ſubſtance to purchaſe her: ſo that in this country it is no charge at all to have many daughters, but rather a part of their eſtate and ſubſtance.

They take many wives; and the greateſt obſtacle they have to be converted to our religion, is this vice of polygamy, which they embrace with great ſenſuality, though it is chargeable, becauſe at the ſame time it is a figure of power and riches. The firſt wife has ſome pre-eminence over the others, and has the ordering of them, yet they all look upon themſelves as lawful wives, and their children as legitimate; yet the ſon of the firſt inherits the eſtate and the honour of Cacique, and has a power over his other brothers.

The ſubjects obey their lord with great punctuality, love, and reſpect; and for this reaſon they have no ſtrong places or priſons to hold them in; for their natural love and reſpect they bear their Cacique, is a law inviolable in their hearts, and a reward of their obedience, which they ſhow in all regards that may pleaſe him.

When a Cacique has a mind to make war, he need not make proviſion of money for pay, without which, amongſt us, men will not fight, even for their king. He need only give out his orders, and they all come with arms and horſes, bearing their own charges during the enterprize; and this is the reaſon that they can aſſemble ſo powerful an army in ſo little time, they all looking upon the common cauſe as their own; and as they make the good of their country the motive of their arms, every one thinks himſelf ſufficiently rewarded if they can defend that from their enemies. The ſound of the drum and trumpet is only to ſhew them the neceſſity of their meeting in arms; at which they immediately leave wife and children, and all that is dear to them, with the hazard of never ſeeing them more, as it often happens.

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In the diſtribution of the booty and ſlaves taken in war, there is no other method, than that every one has what he can get, ſo that the braveſt and moſt diligent are the beſt provided, without any obligation of giving any part of it to their captains or general; for in this they are all equal, and valour alone makes the diſtinction, which they ſhow in an eminent degree, being very deſirous to recover ſome of our arms, ſuch as guns, ſwords, lances; for they have no iron of their own. When they return from war, and find what men they have loſt, it is incredible what lamentations, cries, and tears, proceed from the widows and children of thoſe who are dead; and though this be a common ſentiment of humanity, practiſed amongſt all nations who value ſociety and proximity of blood, which are the foundation of friendſhip, yet the Indian women ſeem to ſurpaſs all others; for they do not cry in ſecret, but ſet up their notes, ſo that when any one hears them at a diſtance, it provokes more to laughter than moves to compaſſion. When a man dies at home, the manner of their expreſſing their ſorrow is more remarkable; for the women all get about the dead body, and the eldeſt beginning, the others follow all in the ſame tone; and thus they continue a great while, ſo that they never give over as long as they can hold out; and this cuſtom they preſerve, even after they are baptized, and live among Chriſtians; but not that which they had of opening the dead bodies, to know of what diſeaſe they died, and to put meat, and drink, and clothes in their grave with them, as alſo jewels and things of value; neither do they cover their graves with pyramids of ſtones, nor uſe other ceremonies practiſed by the gentiles of thoſe parts.

CHAP. VI. — *Of the Chilenian Indians, who inhabit the Iſlands of Chile.*

WE divided the kingdom of Chile into three parts, and the Iſlands made one: theſe are very well peopled: thoſe who live in the fertile iſlands, which are capable of producing corn, and feeding flocks, paſs their lives as the Indians of Terra Firma do, eating fleſh, and ſeveral fruits, the product of their iſlands. Thoſe who inhabit the barren or leſs fertile iſlands, eat fiſh of the ſea, and ſhell-fiſh, as alſo potatoes; and ſome, who cannot have any wool, clothe themſeves with the barks of trees. Some go ſtark naked, though their climate is mighty cold, and by cuſtom do not feel the hardineſs of the weather overmuch.

Others have a ſtrange way of clothing themſelves, which is to gather a certain earth with roots about it, to give it a conſiſtency; and others clothe themſelves with feathers, as Brother Gregory of Leon reports in his map. They are all tall men, and in ſome places there are giants, as the Dutch relate, who ſay, they found ſculls that would contain within them ſome of their heads; for they uſed to put them on like helmets: they found alſo dead men's bones of ten and eleven feet long, whoſe bodies, by conſequence, muſt have been thirty feet high, which is a prodigious thing. Thoſe whom they ſaw alive, were generally taller by the head and ſhoulders than the Dutch. This appears by the relation of General Schewten; and from that of George Spilberg we learn, that when they were in the ſtraights of Magellan, they came to an iſland, which they called the iſland of Patagoons, or giants, becauſe of ſome they ſaw there, and on the Terra del Fuego. Among the reſt, they ſaw one who was upon a rock, to ſee the ſhips go by, and they ſay of him, that he was *immanis admodum, et horrendæ longitudinis.*

Likewiſe we know, from the fleet commanded by Don Fray Garcia, Jofre de Loaiſa, a Knight of St. John's order, that at the cape of the Eleven Thouſand Virgins they found

found the footſteps of men of a large ſtature, and met two canoes of ſavages, whom, becauſe of their ſtrength and ſtature, they called giants; they came near the ſhips, and ſeemed to threaten them; but thoſe of the ſhip endeavouring to follow them, they could not come up with them, for they rowed ſo ſwiftly, they ſeemed to fly. It is probable that theſe canoes were made of the ribs of whales, which are there in abundance: and they found one before with the ſides and ſteerage of whale-bone.

In another voyage, made by Thomas Candiſh, an Engliſh gentleman, they found in a port, (in a very inacceſſible place,) a company of Indians, very luſty men, who, notwithſtanding the prodigious cold of that country, lived in the woods like Satyrs, and ſhewed ſo much ſtrength, that they would throw ſtones of three or four pounds weight a great way. We read likewiſe in the relation of the voyage of Magellan, that as he wintered in the bay and river of St. John, there came to the ſhip ſix Indians, ſo tall, that the loweſt of them was taller than the talleſt Spaniard aboard; that having made a great kettle of the ſweepings of the biſcuit for them, enough for twenty men, thoſe ſix eat it up entirely, without leaving a crumb of it. Magellan gave them a ſort of coats of red wool, with which they were much pleaſed, never having ſeen any before; their ordinary wear being deer-ſkins. They learned from them, that in the ſummer they uſed to come down to the ſea-ſide to live, but in the winter they withdrew more into the heart of the country. We know likewiſe by theſe ſame authors, that the number of the Indians that inhabit thoſe coaſts, is conſiderable, particularly in the port called the port of Shell-fiſh; where as ſoon as they landed, great numbers of Indians, with their wives and children, came to them, and exchanged with them great quantities of pearl, ready wrought in points, like diamonds, very artfully, for ſciſſars, knives, and other baubles; as alſo for Spaniſh wine, which pleaſed them extremely; but they came no more, for they were frighted with ſeeing the Spaniards ſhoot ſome game.

The fleet of George Spilberg found alſo great numbers of inhabitants in the land, on the other ſide of the ſtraight; and when the captains, called the Nodales, were, by the king's order, to view the ſtraight of St. Vincent, they found, upon a point of land of that ſtraight, great ſtore of people. The ſame is ſaid by the Saballas, and others who went from Peru to ſearch the Terra del Fuego; and all thoſe who have paſſed the ſtraights, have conſtantly ſeen men and inhabitants on the ſhore in ſeveral places; and at one place ſome of Spilberg's men landing to purſue ſome birds of a very fine colour, which they ſaw on ſhore, had ſcarce begun to ſhoot them, but they were environed with Indians, who attacked them ſo furiouſly with clubs, that happy was he that could make his eſcape to the ſhip; and many of them were knocked on the head.

The Nodales likewiſe ſaw in the bay of St. Gregory great numbers of inhabitants, with whom the ſeamen drove a trade, by exchanging ſome Spaniſh trifles for gold. By all which it is apparent how well peopled all that coaſt and the iſlands are; yet we do not know what ſort of people inhabit the fourſcore iſlands diſcovered by Pedro Sarmiento, for nobody landed out of that fleet; but we know that the iſlanders of Mocha are a peaceable civil nation, ſeveral ſhips having touched there, and at Sancta Maria. As for the nation called the Chonos, they are a poor people, but good-natured, as has been ſeen by the Chilenians, in whom the Spaniards have found great docility, and a good underſtanding.

In the iſlands diſcovered by Francis Drake, in about five and fifty degrees, of which we have already made mention, they met with canoes of men and women ſtark naked, which is the more remarkable, becauſe of the exceſſive cold of thoſe parts, where

there is a continual night, without any appearance of day, when the ſun coming to the tropick of Cancer, makes our ſummer; on the contrary, when he draws near the tropick of Capricorn, there is continual day, without any ſhadow of night.

And now lately, in the year forty-three, the Dutch having ſent a fleet under the command of Anthony Brun, which paſſed the ſtraights with a deſign to ſettle at Valdivia, as they endeavoured; they ſailed afterwards into ſeventy degrees, where they diſcovered an iſland, which they called Barnevelt, in which they ſaw the footſteps of men of large ſtature, and obſerved great ſmoaks: this place was ſo cold, that the Dutch could not endure the rigour of the weather, which was nothing but froſt and ſnow, it being then June or July, which is the depth of their winter, and a perpetual night, without ſeeing the ſun one hour in a day. It is a wonder how theſe iſlanders paſs their time in ſo much cold and darkneſs, without any thing to cover their nakedneſs; for wanting commerce with Chile, or other parts in Europe, they have neither ſheep nor goats, nor any thing that produces wool fit to make them garments. It muſt be owned, that men are quite other creatures than the nice imagination of ſome effeminate nations takes them to be; and human nature, by cuſtom, accommodates itſelf to the place where it is bred, ſo that very often men will not leave that place for any other more full of conveniency. It is for this that theſe Indians ſhow ſuch an averſion to leave their country where they were born and bred; and though it be a miſerable one, and thoſe they go to more delicious, yet there is no ſweetneſs in any one like that of their own country.

There is a report likewiſe, that in the ſtraights of Magellan there are pigmies, but I know not upon what it is founded; for all the authors that relate the voyages made into thoſe parts, ſpeak always of giants, or men of a gigantick form, who exceed us in ſtrength and ſtature; and it is ſaid in one of theſe relations, that the ſhip's men, in a certain place, beginning to fight with theſe Indians, they pulled up great trees by the roots, to uſe them as a retrenchment, as we may ſee in a picture in Theodore and Jean de Bry; but I cannot imagine how this report of pigmies was invented; and it ſeems to me a jeſt or irony, or, perhaps, among theſe giants there are ſome dwarfs.

That which was ſeen by the vice-admiral of George Spilberg's fleet, was a body of about two feet and a half high, which was buried with another of an ordinary ſtature in a grave of very little depth, and covered after the Indian way, with a pyramid of ſtones, in an iſland called the Great Iſland, about the ſecond mouth of the ſtraights; and from hence, perhaps, or from having ſeen ſome of that littleneſs alive, this report of pigmies took its riſe.

This is all the account I can give of the inhabitants of the ſtraights, and iſlands about it. Time will, perhaps, enable us to be more particular, when by commerce we are better acquainted with them; and then, without doubt, there will not be wanting authors to write about them.

CHAP. VII. — *Of the Indians of Cuyo, who are on the other Side of the Cordillera, to the Eaſt of Chile.*

THE Indians of the province of Cuyo, though in many things they are like the inhabitants of Chile, yet in many others they are not ſo. For firſt, they are not ſo white, but more copper-coloured, which may be attributed to the great heat they endure in ſummer. Secondly, they are not ſo cleanly, nor do not build ſuch neat houſes to live in: but their habitations are wretched; nay ſome, who live in the marſhes, make

make themſelves holes in the ſand, into which they go like wild beaſts. Thirdly, they are not ſo laborious to cultivate their land, and ſo have not ſuch variety of product as thoſe of Chile. Fourthly, they are not ſo brave nor warlike as the Indians of Chile: their language is likewiſe different, and ſo different, that I do not know one word of the one that is in the other; but yet the language of Chile being ſo univerſal, that it is the ſame all over kingdom, to the foot of the Cordillera; thoſe of Cuyo learned it too, and that very perfectly; but I never obſerved that a Chile Indian ſpoke the language of Cuyo, which ſhews the advantage that the language of Chile has over the other.

In return of theſe advantages which the Chilenians have, thoſe at Cuyo have ſome over them. And the firſt is in the ſtature, which is taller, but not ſo ſtrong and well ſet as the Chilenians, but rather raw-boned, without fleſh. I do not remember I ever ſaw a fat Cuyian among ſo many as I have ſeen. They are likewiſe better workmen in ſome things which require patience and length of time, ſuch as baſket-work of ſeveral figures, all of ſtraw; and yet ſo cloſe worked, that they will hold water; for which reaſon they make their drinking veſſels of them; and as they cannot break by a fall upon the ground, they are very laſting, and the curioſities of this kind, which they make, very much valued for their work and colours.

Likewiſe they prepare ſeveral furs of animals, which they hunt; and they are very ſoft and warm for winter: they hunt and catch oſtriches likewiſe, and make many works of their feathers, with which they adorn themſelves on their feſtivals, mingled with the feathers of other birds. They likewiſe hunt the wild goats and deer, and are the maſters of all the Bezoar-ſtones, which they ſell to the Spaniards ſo dear, that any one who ſhould buy them to get by them, would make but a ſmall profit in Europe.

Theſe Cuyians are alſo more hairy, and have more beard than the Chilenians, though they pull their hair as the others do, but with more trouble; and they never look ſo ſmooth as thoſe of Chile. They are all well-ſhaped, and nimble, and have a good air: they have alſo good underſtandings. The women are tall and ſlender, and I do not know that I ever ſaw taller: they paint their faces green, which is ſo well ſettled in their ſkin, that there is no getting it out: moſt commonly they paint only their noſtrils, ſome their whole faces, and the men their beards and lips. Their habit is decent in both ſexes; the women let their hair grow as long as they can, but the men only below their ears. In all other things are like the Chilenians.

They are very nimble, and good travellers, without tiring. I have ſeen them run up the ſtiffeſt and ſtraighteſt hills of the great Cordillera, like ſo many goats; and this the women will do as well as the men; nay, the little children too. The women will run with their children in a cradle faſtened to their backs by a ſtrap that comes over their forehead; and with all this weight they follow their huſbands with ſo much eaſe and agility, that it is wonderful.

For a proof of the admirable diſpoſition of theſe people, in walking and running, a corrigidor and captain-general of that province told me a ſtory about their hunting their veniſon, which is very ſingular; he told me, that as ſoon as they find their game out, they draw near them, and follow them upon an half trot, keeping them ſtill in ſight, without leaving them ſo much as to eat; and in a day or two they begin to tire them ſo as they can come up with them, and kill them, and return home loaded with them, where they feaſt upon them, with their families, till they have made an end: for theſe Indians are ſuch gluttons naturally, that a few of them will eat up a calf, or a young heifer in a meeting: but they are as good at faſting, when they have nothing to eat; for they will paſs ſeveral days with a little maize and ſome

roots, which grow wild: they are alſo very dexterous archers, and often kill with their arrows the game they ſee.

I ſhall not omit a particular favour beſtowed on theſe Indians by God Almighty, which is a ſingular inſtinct of tracing and following any loſt thing. Of which I ſhall give two examples which happened in the city of St. Jago.

Our college had a cart belonging to it, which ſtood at the gate of a garden, to which our Seminariſts did uſe to go to refreſh themſelves; it was ſtole one night, and being miſſed in the morning by one of our lay-brothers, he immediately went to find out a Guarpe (for this is the name they give thoſe finding Indians); he preſently fell upon the ſcent or piſte, and followed it, taking with him the lay-brother, till he came to a river, where it failed him: but he loſt not the hopes of finding it; he croſſed the river, and recroſſed it again, once and twice, by ſo many different fords, (the man that ſtole it, as he ſince confeſſed, had croſſed ſo many times to break the piſte to the follower.) After this he went four leagues outright, and there he found it, when the man that had it, believed himſelf moſt ſafe from being diſcovered.

Another time, a certain perſon having loſt a parcel of oranges, he employed a Guarpe, who having led him through many ſtreets and turnings, brought him at laſt to a houſe; where finding the door ſhut, he bid him knock, and go in, For there, ſaid he, are thy oranges. He did ſo, and found them. There are every day experiments of this kind made by them to admiration: they are likewiſe ſtout workers, very ſtrong and laſting in labour.

Next to theſe Indians of Cuyo, are the Indians Pampas, called ſo becauſe they inhabit thoſe vaſt plains, which are extended for about four hundred leagues to the eaſt, and reach to the North-Sea. Thoſe of the point of Los Venados are the neareſt the kingdom of Chile, and are much of the ſame kind. Theſe Pampas have no houſes, in which they differ from all mankind; for the firſt thing men generally do, is to cover themſelves from the inclemency of the air: and this is the thing which theſe Pampas do the leaſt care for; perhaps they are of opinion, that it is an injury to the to the Author of mankind, to look for more ſhelter than he afforded men at firſt, which is the earth, with the heavens for vault or cover; and that to defend themſelves from rain, it was enough to make any little cover, which might be eaſily taken away, and ſet up in another place.

This they obſerve; and look upon it as a ſort of priſon or captivity, to be tied to one place: for this reaſon they will neither have houſe, nor gardens, nor plantations, or poſſeſſions, which are like chains to hinder their removal to other places; for they judge that the greateſt of all earthly felicities is to have the abſolute, entire, and independent uſe of their own free will; to live to-day in one place, to-morrow in another. Sometimes, ſay they, I have a mind to enjoy the freſhneſs of the river-ſide, and being weary of that I paſs to another. Otherwhile I have a mind to live in woods and ſolitudes; and when I am weary of their ſhades, I go to the open air of plains and meadows. In one place I hunt, in another I fiſh; here I enjoy the fruits of one territory; and when they fail, I ſeek out another, where they are beginning to ripen. In ſhort, I go where I will, without leaving behind me any thing I regret or deſire, which uſes to be the torment of thoſe who are fixed. I fear no ill news, for I forſake nothing I can loſe; and with the company of my wife and children, which I always have, I want for nothing.

This is the account that theſe people give of themſelves; and thus they paſs a life without cares; here to-day, to-morrow in another place; making in an inſtant, with four little poſts, a hut covered with boughs, or ſome hide of a beaſt. Their incomes

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are their bows and arrows, with which they provide them with fleſh, with which they drink water; only ſometimes they make their drink, called Chica, of fruits of the trees, as they do in Chile. Their clothes are ſome leaves for decency, and a ſkin, which is like a cloak to cover them in other parts. They make holes in their lips, and put ſome glaſs or braſs pendants in them, and ſometimes ſilver ones. The men let their hair grow to their ſhoulders, and the women as long as it will. There ſeems to be one thing wanting to this nation, which all other Indian nations have, which is the bread they make of maize, or wheat, or ſome of rice: but yet they do not want a ſupply of this kind; for becauſe they have not theſe grains, they make bread of the cods of a tree, which we in Spain call Algaroba,; and becauſe that does not laſt long, they have invented a ſtrange ſort of bread made of locuſts, (nay, I have heard of Moſquitos;) but the locuſts uſed to be in ſuch vaſt quantities in thoſe great plains called the Pampas, that as I travelled over them, I often ſaw the ſun intercepted, and the air darkened with flights of them.

The Indians obſerve where they light to reſt; and thoſe plains being here and there full of thickets, they reſt in them, and chuſe the higheſt for ſhelter. This the Indians know; and approaching ſoftly in the night, they ſet fire to the thicket, which, with the high winds that reign in thoſe plains, is ſoon reduced to aſhes, and the locuſts with them. Of theſe they make great heaps; and as they are ready roaſted, they have nothing more to do, but to grind them to powder; of the flour of which they make a ſort of bread, which maintains them. To the ſame end they uſe an herb called Cibil, which, either by pact with the devil, or by natural virtue, affords them a ſuſtenance for ſeveral days, only by keeping it in their mouths, where it makes a white foam, which appears upon their lips: it is a very diſagreeable ſight, and made me very ſick to ſee it.

Though theſe people are not ſo warlike as the Chile Indians, yet they are courageous, and have ſhewed it upon ſeveral occaſions. They are very dexterous at their bows and arrows, with which they make incredible ſhots. But beſides theſe, they have a very extraordinary ſort of a weapon of a new kind, which is made of two balls, the one bigger, and is a ſtone perfectly well rounded, about the bigneſs of an ordinary orange; the other is of a bladder or hard leather, which they fill with ſome matter of leſs weight than the ſtone: theſe two balls are tied ſtrongly to each end of a ſtrong whipcord, which they twiſt off a bull's pizzle: the Indian ſtanding on a high ground, takes the leſſer ball in his hand, and lets the other fly, holding it like a ſling over his head to take aim, and hit his adverſary with the heavy ball, which they direct to the head, or legs of their enemy; and thus they entangle him ſo, as to bring him to the ground, and then the Indian leaps from the height where he was, and without giving him time to diſembarraſs himſelf, they kill him; and this inſtrument is ſo powerful in their hands, that it not only brings a man to the ground, but a horſe or a wild bull, which are very frequent in thoſe parts, ſince the coming of the Spaniards among them.

At this time they have no wars with any; for though they do not own a ſubjection, yet they carry themſelves to the Spaniards very friendly; and the reaſon is, becauſe they ſee their towns ſo populous and ſtrong, that it would be in vain for them to ſtir, or make any attempt againſt them: they have the liberty of going in or out as they pleaſe; and when they have taken a kindneſs for a Spaniard, there will come a troop of them in harveſt time to help him to get it in, and when it is over, they return to their own way of living: but there are others who come in troops to the highway, and if the Spaniards are not well armed, attack them in their waggons; for

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which reaſon they ſeldom ſet out but a great many together, and well provided for an encounter; but moſt commonly they are well pleaſed with ſome little preſent, which they aſk very boldly, as if they were maſters of all the goods in the waggons: they generally are content with a little biſcuit or wine; but if the travellers are too niggardly, they are in danger all the way, and muſt owe their ſafety to their fire-arms.

BOOK IV.

OF THE FIRST ENTRANCE OF THE SPANIARDS INTO THE KINGDOM OF CHILE.

CHAP. I. — *The Introduction to this Book.*

HAVING hitherto treated of thoſe three parts, into which at firſt we divided the kingdom of Chile; of its ſoil and climate; of its temperature and properties; of its inhabitants, and their antiquity, nobility, and cuſtoms; the order of this hiſtory requires we ſhould now treat of the entrance of the Spaniards into their country; ſince by that it has been changed much for the better in many things: and although what we have already mentioned about the flocks, fruit, bread, wine, oil, &c. of which they had no idea, before the Spaniards came among them; yet this is nothing in compariſon with the advantages they received by the light of the goſpel, which by the means of the ſame Spaniards, was and is communicated to them. Upon this conſideration, we may well excuſe ſome military exceſſes of covetouſneſs in ſome of the firſt diſcoverers and their ſoldiers, who as ſuch, and men who are bred in diſorder and confuſion, and uſed to embrue their hands in blood where they find reſiſtance, had leſs regard to the ſtrict rules of juſtice towards the Indians. But this was againſt all the orders of Their Catholic Majeſties, who from the beginning recommended moſt ſtrictly the preſervation of the privileges of thoſe poor people, charging all their governors, captains, conquerors, and royal miniſters, that they ſhould always have before their eyes, in the conqueſt of this new world, not ſo much the dilatation of their royal power and monarchy, as the propagation of the goſpel, and the kind uſage of the Indians, their converſion being the principal motive of the undertaking, as we ſhall ſee in its proper place.

But how is it poſſible, morally ſpeaking, that human actions, though never ſo well deſigned upon high motives, ſhould not have a mixture of the inconveniences which paſſion, not overcome by reaſon, produces? and ſo it is no wonder, that in the beginning of thoſe diſcoveries ſome diſorders ſhould happen, though they never were ſo exorbitant as ſome authors make them; and particularly in Chile they were much leſs, becauſe the inhabitants of thoſe parts made the Spaniards feel their valour at their very firſt entrance, where they found their progreſs oppoſed with greater vigour than they imagined.

But ſince this kingdom is one of the conſiderable parts of America, it will be neceſſary firſt to ſay ſomething of the diſcovery of the new world; for this being the remoteſt

remoteſt part of it towards the ſouth, it was neceſſary to paſs all the reſt before it could be diſcovered; and therefore, though I have not a deſign to make any relation but of the kingdom of Chile, I ſhall nevertheleſs touch upon the other diſcoveries, and follow the ſteps of the conquerors in order, as the hiſtories of them do relate; ſo the ſubject of this book will be better underſtood, by opening the manner of the finding them, and the order of time in which this progreſs was made; and ſo place each kingdom according to its antiquity.

CHAP. II. — *Of America in general, and what light may be found of the it among antient Philoſophers.*

AMERICA, called otherwiſe the New World, becauſe of its late diſcovery, is now as well known as it was formerly hid for ſo many paſſed ages, not only to the vulgar, but to thoſe piercing wits among the pagans, Ariſtotle, Parmenides, Pliny; and among the chriſtian philoſophers, to St. Auſtin, Lactantius, and others, who judged all that climate to be inhabitable that lay between the tropics, founding their opinion upon a point of their philoſophy, which was, that the preſervation of the animal demanded by its temper the juſt proportion of the firſt four qualities, which they ſuppoſed could not be found under the torrid zone; for ſo they called it, becauſe of the force of the ſun upon it, it being all the year almoſt perpendicular to it; and having obſerved its effects on this ſide the tropics, how it dries the earth in ſummer, conſumes the fountains, thinking that if it did not withdraw to the other tropic, it would have entirely fired the earth, though refreſhed by the nights, it is no wonder if they were perſuaded that where its beams were continual, there could be no habitation for man.

But experience, which is the touch-ſtone of all philoſophical diſcourſes, has diſcovered that not only there is a plain paſſage, though troubleſome, from one pole to the other, but alſo that thoſe regions contained under the Zodiac have been, and are inhabited by innumerable nations; and that there are even under the equinoctial line, ſome places, as that of Quito, ſo temperate and healthy, that they are manifeſtly preferable to ſeveral in the temperate zone. This new world has, by common conſent, been called America unjuſtly enough, as Herrera complains in the firſt book of his fifth decade, by the crafty uſurpation of this diſcovery appropriated to Americo Veſpuſio, inſtead of Columbus, who by this means is deprived of his true glory.

It is not eaſy to make out what knowledge the antients have had of this new world: Marinco Siculo pretends, in his Spaniſh Chronicles, that the Romans had known it, and made ſome conqueſts in it; and his foundation is, that in one of the gold mines of America, there was found a medal or antient coin, with the figure of Auguſtus Cæſar; which, he ſays, was ſent to the pope by Joannes Rufo, archbiſhop of Cozenſa; but this is refuted, as ridiculous, by Pedro Bercio in his geography; and it is not very probable, that that coin alone, and no other, ſhould have been found in all this length of time, ſince the mines are working in the Weſt-Indies. But, beſides, if the Romans had been once in poſſeſſion of thoſe parts, it would not have been eaſy to have loſt all commerce with them, conſidering the great riches that communication produces; for the nations would have called in one another, as we ſee they have done ſince the diſcovery made by Their Catholic Majeſties, and their poſſeſſing of thoſe parts, to which there goes every year ſo much people from Europe.

As to the Roman coin, it is probable that ſome who paſſed from Europe with the firſt conquerors of the Indies, and out of a humour of ſpreading novelties, (which

though little worth, are generally applauded by the vulgar,) feigned he had found it in the mines; or it might fall from him, and be found by another, who carried it as a rarity to the biſhop, who is ſaid to have ſent it to the pope. I am not ignorant that there are many arguments and conjectures, and thoſe not contemptible, of ſome knowledge that the antients had of this ſo principal a part of our globe, which are related by Abraham Ortelius, Goropius, father Acoſta of our company, in his firſt book of the Hiſtory of the Indies, chap. 11, 12, and 13. Thomas Boſius, book XX. chap. 3. Malvenda, Friar Gregory Garcia, in the firſt book of the Origin of the Indians, taking their hints from Plato, Seneca, Lucian, Arrian, Clemens Romanus, Origen, St. Jerome, and others, who ſeem to have had ſome knowledge of this new world. There may be ſeen in Father Pineda, of our ſociety, in the fourth book about Solomon's Court, chap. 10. the words of Abraham Ortelius, which make very much to this purpoſe.

CHAP. III. — *What light may be had from Scripture about this new region.*

THERE is another queſtion which ſeems to be better founded than the firſt; and that is, what light may be had from ſcripture about *theſe remote regions? becauſe* there are many authors, who *from theſe words of the ſecond of Chronicles, chap. iv.* "The ſervants of Hiram brought, *with the ſervants of Solomon, gold from Ophir,*" infer, that the ſcripture here *ſpeaks of the Weſt-Indies, and interpret Ophir to be* Peru, or all America; and as the moſt famous Chriſtopher Columbus was the firſt who diſcovered it, ſo he ſeems to have been the firſt that uſed that expreſſion; for they ſay, that when he was in the iſland of Hiſpaniola, he often ſaid, that at laſt he was come to the deſired land of Ophir, as is related by Peter Martyr, in his firſt book of the Decade of the Ocean. But he who firſt ſet out this opinion in form, was Francis Vatable, who upon the third book of Kings, in the ninth chapter, and ſo on, makes Ophir to be the iſland of Hiſpaniola, and the continents of Peru and Mexico. He was ſeconded in his opinion by Poſtel, Goropius, Arias Montano, Antonio Poſſevino, Rodrigo Yepes, Boſius, Manuel de Sa, and other authors, reported by Pineda, in his treatiſe *De rebus Solomonis;* which makes Father Martin del Rio, of the company of Jesus, ſay, that this opinion is not without good grounds; but he who defends it moſt vigorouſly, is Father Gregory Garcia, of the order of St. Dominick, in his book *De Indorum Occidentalium Origine*, where he ſtrives mightily to clear this opinion from all objections and oppoſition.

The things ſaid by theſe authors are not of ſmall weight, though thoſe who would make an inference from the word Peru's having a nearneſs to Pharvim, which is uſed by the Septuagint in 2 Chron. iii. where, ſpeaking of the gold with which Solomon adorned his temple, they ſay, that it was of gold of Pharvim, which in the vulgate is tranſlated *Aurum probatiſſimum*, or moſt pure gold, have againſt them a powerful adverſary, to wit, Garcilaſſo de la Vega, who affirms, that the name Peru is not the name of the land, but that the Spaniards, endeavouring to inform themſelves of the country, took an Indian, whoſe name was Beru; and that aſking him what country they were in, and he imagining they aſked him his name, he anſwered Beru; and the Spaniards thought he had ſaid Peru, and that that was the name of the country, which ever after was called ſo. That which, in my opinion, confirms moſt the belief of Ophir, is, that which Solomon ſays of himſelf in the book of Wiſdom, that he "knew the diſpoſition of the earth;" with which it ſeems that ignorance was incompatible;

incompatible; and that he could not but be informed of that great and principal part of the world; ſo that we may conclude he knew how to ſend his fleets thither, and bring home the riches of thoſe parts; and this may be more probable, if we conſider the great deſire he had of gathering together all the precious things from ſeveral parts of the earth, and the pureſt gold, for the ornament of the temple and houſe of God; for the gold of Valdivia and Carabay being the pureſt in the world, and the precious woods of odours that are in thoſe kingdoms, and Paraguay and Braſil, the fineſt, it appears hard he ſhould not uſe all diligence to have them, they making ſo much to his end, which was to gather treaſure and precious things.

That he could do it, there ſeems no reaſon to doubt, ſince we know he had a great and powerful fleet; and if this fleet ſpent always three years from the time of its ſetting out in the Red-Sea, to the time of its return, as the interpreters of the ſcripture all ſay, in what could they ſpend ſo much time, but in going to the utmoſt bounds of the eaſt and weſt? and, it is poſſible, went round the world, as the ſhip Victory did ſince, in the ſame time; in which the great Captain Magellan diſcovered and paſſed the ſtraights of his name; and ſince we know that the fleets of the Catholic kings do, in our days, penetrate to the utmoſt parts of the eaſt and weſt in leſs than a year's time, why could not the ſame be done by thoſe of ſo powerful and ſo wiſe a king as Solomon, who may be ſuppoſed to have underſtood himſelf, and inſtructed his captains and pilots in the art of navigation? neither is it improbable, but he might know the uſe of the loadſtone, and the ſea-compaſs, as ſome authors do affirm he did. This is yet more confirmed by what we have obſerved already about the knowledge and conjectures which the antients had of this new world, of which he likewiſe could not be ignorant, but rather have a more particular inſight into them, being himſelf ſo perfect in the ſciences of coſmography and geography, as well as hydrography: all which he had by infuſion from God Almighty, that he might ſee into the errors of thoſe who believed there were no antipodes, nor that the torrid zone could be inhabited, denying the roundneſs of the earth, and other ſuch miſtakes.

Laſtly, we know, that his fleets came to Syria, Phœnicia, Africa, and Europa; and to come to thoſe coaſts, it is certain, that if they ſet out at the Red-Sea, it was neceſſary for them to ſail ſouthward to double the cape of Good Hope, and then north, and paſs the equinoctial line a ſecond time, as the Portugueſe do now in their voyages from India to Portugal. This being ſuppoſed, and that Solomon had the knowledge of America, it is probable he was not unacquainted with the communication of the North and South-Seas, by the ſtraights of Magellan and St. Vincent; for Solomon being ſo powerful, both by ſea and land; and ſo well inſtructed in all things, it is probable he cauſed thoſe ſhores to be ſearched, to find the communication of both ſeas, as it was ſince done by men much inferior to him in every thing, which were Magellan, and Jacob le Maire; or, it might be diſcovered by ſome ſhips driven by ſtorms into thoſe parts, as ſome ſay it befel the firſt diſcoverers of America.

This once ſuppoſed, thoſe who underſtand any thing of navigation, and the art of the ſea, cannot but know how much more eaſily a fleet, being placed at the Cape of Good Hope in thirty-ſix, may ſail ſouth to the fifty-fourth degree, where the ſtraights of Magellan lie, than to ſail to the north above ſeventy-two degrees, which it muſt do from the Cape to Europe: From whence may be inferred what I ſay, that if it was true that his fleet came to Africa and Europe, and entered the Mediterranean ſea, it was much eaſier to go to Chile and Peru; for from the ſtraights it might run before the wind all along that coaſt; and having taken in the gold, precious woods, ſilver, and other commodities, it might return by the ſame ſtraights, as Pedro Sarmiento,

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and others, have done to the North-Sea, and ſo to the Cape of Good Hope and the Red-Sea; or, the fleet being in the South-Sea, might ſail weſt to the Philippine iſlands; and from thence coaſting along thoſe parts we call the Eaſt-Indies, it might take in all the eaſtern commodities; and ſo having gone round the world, return laden with all the riches of eaſt and weſt, with pearls, diamonds, rubies, and other fine ſtones, as alſo muſk, amber, ivory, and other valuable eaſtern commodities; and from the weſt, with gold, ſilver, odoriferous woods, pearls, emeralds, fine dyes, rich and fine wools, amber, and other riches, which were wanting to make up the opulency of Solomon.

Neither ought this to be thought impracticable, ſince it is made out already in theſe books, how eaſy the navigation would be from Chile to the Philippine iſlands in two or three months: the conveniences of which navigation have been ſet out in the fourth chapter of the ſecond book; and we do know how the ſhip Victory did return that way, and ſo have many others ſince; by all which the poſſibility of Solomon's navigation is made out, and that within the compaſs of the three years, in which they uſed to return to their port in the Red-Sea; and if it did not do this, it can hardly be imagined how it could employ ſuch a ſpace of time.

For theſe, and many more reaſons of this nature, our moſt learned Pineda retracts the contrary opinion, which he had publiſhed in his commentaries on Job; becauſe, when he writ them, he had not ſo well examined the grounds of the laſt opinion, nor weighed all the authority and ſtrength of conjectures that attend it: and, indeed, ſo far every prudent man would go, as not to deſpiſe and contemn an opinion of which he believed the contrary, if it were maintained with probability, and by perſons worthy to be hearkened to. Though, to ſay truth, if I muſt ſpeak what I think, that one reaſon which I gave above againſt the Romans having had knowledge of thoſe parts, (which is, that it appears incredible, that having once made the diſcovery, and enjoyed thoſe mines, not only the communication with them, but the very memory of them ſhould be loſt,) ſeems, in my opinion, to be as ſtrong an argument againſt Solomon's fleet; for if that did once overcome all the difficulties of that navigation, what cauſe could interrupt that commerce in ſuch a manner, as that the total remembrance of it ſhould be aboliſhed? It is true, that as to the Jews, they were a people who did not care to live in foreign parts, nor ſettle among other nations, nor inhabit the ſea-coaſts; for God Almighty was unwilling, that, by the communication with the Gentiles, they ſhould contract any of their cuſtoms; and therefore we do not know, that of all the race of their kings, any more than three went about any ſuch thing, which were Solomon who compaſſed it, and Joſophat and Ochoſias, whoſe undertakings had no ſucceſs. By which it may be infered, that when Solomon died, and the temple was finiſhed, this navigation was neglected, till at laſt it was quite forgot; beſides, that it appears from the Chronicles, and other places of ſcripture, that in thoſe times ſilver and gold were but little valued, the covetouſneſs of mankind not being arrived to the height it is at now-a-days: they did not think it worth leaving their houſes to endure labour in the ſearch of them, and run all thoſe hazards which the voyagers to thoſe parts do undergo. This therefore might take off the edge and deſire which we ſee in the Europeans, of continuing thoſe voyages; neither would they deſire to ſettle in thoſe parts; or if they did, the memory of them might be loſt. See Padre Pineda, particularly in the fifth ſection of the ſixteenth chapter, where he anſwers the arguments of the negative opinion; to which he gives very handſome ſolutions; and in particular, to thoſe who ſay, that Solomon's fleet could bring nothing but gold and ſilver, as if this were nothing, or like ballaſt; and that this were not motive enough for him to ſend his fleets, for a thing of which it appears he made ſuch uſe, both for the temple and his own palaces; ſo that it does not

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ſeem poſſible he could have it all from the eaſt, but muſt have had recourſe to the weſt, where there was ſuch a maſs of it, as is made out by what we have ſaid of the mines of Chile, and thoſe of the Inga, with thoſe trees, fruits, and plants of maſſy gold, and ſtatues of the ſame metal in his gardens; beſides what they call Guaſcas, where to this day they keep concealed a vaſt ſtore of thoſe riches gathered together for the liberty of the Inga, when the Spaniards had him priſoner; all which may be ſeen in what has been ſaid already in ſeveral chapters.

CHAP. IV. — *Of the Diſcovery of America; and by what Means it was performed.*

AMONG the hidden and wonderful ſecrets of nature, we may reckon the ſingular virtue of the loadſtone, which has produced ſuch wonderful effects, as they ſeem more the object of our eyes than of our faith, as men; for who, if they did not ſee it, could believe the experiments made every day, which ſurpaſs all imagination? See the curious and elaborate treatiſe of Father Athanaſius Kirker, of our company, *De arte magnetica*; for there the moſt aſpiring mind after curioſities will find all he can wiſh about this matter, as well what is ancient, as what is modern, the whole treated with ſo much erudition and clearneſs, that the ſtudy of it is not leſs delightful than profitable. The ſame ſubject is alſo treated of excellently by Father Nicholas Cabeo, of our company, in his book of Magnetical Philoſophy.

Among all the virtues of this rare ſtone, I think that its quality of taking up iron is not ſo admirable as that which it has had of drawing gold and ſilver to Europe from India; the maſs of which has been ſo great, that ſome curious perſons having made a calculation in this matter, which they underſtood very well, and reckoning the millions brought by the galleons and flotas, from the diſcovery of the Indies to their time; and having alſo computed the diſtance between Europe and thoſe parts, have found that there might have been made, from the one to the other, of bars of ſilver, a bridge of a yard and a half wide; ſo that if all that metal could be found now-a-days in any one place, it would make a mountain like that of Potoſi, from which the greateſt quantity has been fetched; and for that reaſon it appears hollow, and bored through in ſo many places. We may therefore ſay of the loadſtone, that gold has given it a virtue like that of faith, to tranſport mountains, not only from one place to another, but from one world to another, through thoſe immenſe ſeas which ſeparate them.

Who the firſt man was that applied this virtue to facilitate navigation, it is hard to prove by authors; for though we know that this ſtone was known to the Jews, and to the Egyptians, yet who firſt made uſe of the ſea-needle and compaſs, is very hard to find out. Some ſay it came from China to Europe: others, that it was found by the inhabitants of the Cape of Good Hope; and that Vaſco de Gama, met with ſome of their veſſels, when he made the diſcovery of the Cape, who uſed this inſtrument: others give the glory of it to the Spaniards and Portugueſe; others to a man of the kingdom of Naples, called John Goyas, of the city of Amalfi, who was rather the man that perfected this invention, being himſelf an experienced ſeamen. But let every one have his opinion, it is not my buſineſs to decide; I only ſay, that to this admirable virtue of the loadſtone we owe the diſcovery of America: for though ſome authors ſay, that Solomon's fleet ſailed by the obſervation of the ſtars, the winds, the flight of birds, and other ſigns, with which they ſupplied the want of this uſeful invention, not then known according to the common opinion, (though the contrary is not altogether improbable,) yet it muſt be

be owned that the uſe of this ſea-needle has been the thing that has facilitated the navigation, ſo as the firſt diſcoverers, truſting to this, durſt venture into vaſt ſeas, and paſs the gulph which leads to that remote and unknown world, ſo as to land in it; which was a performance worthy of immortal memory to the man who undertook and executed it.

This man was the moſt famous Captain Don Chriſtopher Columbus, a Genoeſe, whom the Spaniards in their language call Colon, who, though he were not, as he was, nobly deſcended, might have given by himſelf nobility and fame to his deſcendants, and to his noble and illuſtrious country; for if this commonwealth had had only this ſon, it might draw fame enough from him alone, ſince his generous and bold mind was capable of overcoming all the difficulties which he met with in the project and execution of this enterprize, the more to be eſteemed by the great advantages procured by it to both worlds; to this, by that vaſt increaſe of riches, of which a great deal is conſecrated upon the altars in churches, beſides what is employed in the furniture of princes and great men: and to the other world, the benefit of the light of the goſpel, by which it is ſo much more poliſhed and meliorated in all ſenſes.

Neither does that which Garcilaſſo de la Vega, and others, do relate, any ways affect the glory of this great man, when they ſay, that he undertook this deſign upon the knowledge communicated to him by a man whom he entertained, and who died in his houſe as his gueſt; for we muſt own that his chief praiſe does not come from what he knew of this new world before he undertook to find and conquer it, but from his generous mind and conſtancy in purſuing his enterprize; and this is all his own, which puts juſtly the laurels upon his head, and makes his memory immortal in ſpite of time and envy, though one would think no body ſhould have any for the common benefactor of two worlds. That which theſe authors relate about this hiſtory is, that a pilot, an inhabitant and native of the town of Guelva, in the county of Niebla, in Andaluſia, called Alonſo Sanches de Hualva, or as others ſay, Buxula, uſed to trade with a ſmall veſſel to the Canaries; and that one time, in his return to Spain, he met with a mighty ſtrong Levant, which was ſo powerful, that in twenty days he found himſelf in one of the iſlands of the Weſt Indies, one of thoſe which we call the iſlands of Barlovento, or the Windward Iſlands, and it is judged it was Hiſpaniola; from whence, fearing to periſh for want of proviſion, he returned to the iſland of Madeira, having endured ſo much, that almoſt all his company died, and himſelf came in ſuch a condition, that though Columbus, who loved ſea-faring men, and for that reaſon had choſen that iſland to live in, received him into his houſe, and took great care of him, yet he died; but before he died, being willing to make ſome return for the kindneſs received, he called Columbus to him, and left him, as an inheritance, the journal he had made, with the rhumbs of wind both going and coming, and all other his obſervations in the voyage, and about the place where he landed.

This is thus related by Garcilaſſo de la Vega, and Father Joſeph d'Acoſta, who ſays, he does not know the name of this pilot who left this legacy to Columbus: and this he attributes to the particular providence of God, who would not have the honour of this diſcovery be owing to any human induſtry, but immediately and intirely to the Divine Majeſty, to whoſe diſpoſition we ought to attribute ſo much as appears contingent and caſual in this ſhip's miſcarriage, from its courſe, and all the other accidents attending that ſtorm, till the pilot was brought to die in the houſe of him whom God had choſen for a ſecond cauſe and chief inſtrument of this enterprize; who being of himſelf a great philoſopher and coſmographer, compared theſe notions which he had from

from his dying gueſt, with his own ſpeculations which he had long had upon the ſame ſubject; and this made him reſolve to undertake what he afterwards accompliſhed. In order to this he began to conſider of thoſe who were likelieſt to aſſiſt him; and firſt of all he offered it to his own country, who took it for a dream; after this, to the Kings of Portugal, France, and England: and at laſt he addreſſed this rich offer to Their Catholick Majeſties, for whom it was deſigned from the beginning, by Him who had reſolved in his providence to amplify their monarchy by the addition of ſo many rich and powerful kingdoms, as they have acquired in this new world.

Ferdinand and Iſabella, who are worthy of immortal glory, having examined the grounds Columbus went upon, and the honour that might be done to the croſs of Chriſt, and to the preaching of his goſpel, if this enterprize ſhould take effect, having ſeriouſly conſidered of it for eight years together, they commanded all neceſſary proviſions to be made, without ſparing any charge, or minding the contingency of a deſign ſo new, ſo difficult, and ſo much without example.

CHAP. V. — *Don Chriſtopher Columbus ſails from Spain in Search of the New World.*

IN the year of the birth of our Saviour 1492, upon the third of Auguſt, about half an hour before ſun-riſe, (the happieſt day that ever ſhined upon our antipodes, as being the beginning of their greateſt felicities,) Don Chriſtopher Columbus, the moſt famous Genoeſe that ever was, ſailed from Spain, with the title which he had received from Ferdinand and Iſabella, of admiral of the Seas of all thoſe countries he ſhould diſcover and conquer; ſo leaving behind him the famous Herculean ſtraights, as diſdaining their *Non-plus-ultra*, and laughing at their pillars, he launched into the vaſt ocean, and begun his navigation with no leſs confidence than admiration of thoſe who ſaw him leave the ſhore and ſteer a courſe never before attempted, by new rhumbs of winds. Having touched at the iſland of Gran Canaria, he again ſailed from thence the firſt of September, with ninety in company and proviſions for a year. After ſome days of navigation he began to find himſelf near the tropick of Cancer, and under the torrid zone; whereupon his men who had been bred in the temperate climates of Europe, being impatient of heats, which they never before had experienced, and wearied with ſeeing nothing but a vaſt ocean without land, began to enter into diſtruſt of diſcovering any. At firſt they murmured only between their teeth; but at laſt, ſpeaking out boldly, they came to their Captain Columbus, and endeavoured by all means to diſſuade him from purſuing his diſcovery, as vain and without hopes of ſucceſs; and that it would be much better to return back to Spain; but he with a generous mind being deaf to all their perſuaſions, purſued his voyage with conſtancy. His men perceiving ſtill how he went further from Spain, and that they had almoſt worn out their eyes with looking out from the top-maſt head of the ſhip, without finding any appearance of land, renewed their inſtances and reaſons; and that the more earneſtly, by how much they perceived every day the conſumption of their water and proviſions; calling now that temerity, which before they ſaid might be conſtancy: for they alledged that the time was increaſed, their proviſions leſſened, the winds ſcarce, and calms to be feared; no land in view, its diſtance not to be known nor gueſſed at; that the danger was certain, and no avoiding to periſh, if they ſtaid any longer; therefore, ſaid they, let us ſecure our lives, except we intend to be a fable and laughing-ſtock to all mankind, and looked upon as our own murderers.

To ſay truth, it cannot be denied but this was an urgent danger, and greater perhaps than can be imagined by thoſe who never were in the like trials; for when no leſs than life is at ſtake, all dangers appear great, and particularly at ſea: beſides, theſe allegations were of themſelves of great conſideration, and capable of ſhaking the greateſt conſtancy and valour; yet the courage of the great Columbus was ſuch, and ſo ſingular his prudence, that ſometimes diſſembling, and ſometimes taking no notice of what he heard, but talking to this man and the other in private, and then comforting them all up in general, and giving them ſome account of his well-grounded ſpeculations, he ſo fed them with hopes and expectations, (he himſelf ſhewing no diſtruſt of his ſucceſs,) that he brought at laſt his project to a happy iſſue. They were following their voyage thus, through all the inconveniencies of heat, ready to ſtifle them, when on a ſudden a voice was heard crying, Land, Land: they all flew to the prow and ſides of the ſhip, and fixed their eyes on the horizon like ſo many Argus's, to find out the land which ſeemed to appear like a cloud upon the ſea. The deſire of getting to it made ſome doubt, if it were land or clouds; but others were more confident: ſome aſſure it to be low land; others think they ſee rocks, and a large extended ſhore; and all was but gueſs, occaſioned by the great diſtance they were at ſea from any land; for in truth it was not land but clouds. And this was an invention of Columbus, their admiral, who ſeeing them almoſt ready to mutiny, made uſe of this artifice to prevent the ill effects of their deſpair, cauſing this voice to be heard to give them a ſhort joy, and amuſe them.

This ſucceeded well for that time: he ſteered his courſe towards this pretended land till night; and when they were aſleep he ſet his prow to the weſt, in ſearch of the true land: but in the morning when it was day, ſeeing thoſe clouds, which they took for land, vaniſhed as it often happens in long navigations, they began to afflict themſelves anew, and remonſtrate to the admiral boldly to his face, which I do not wonder at; for beſides the danger of periſhing with hunger, they found themſelves in a climate ſo ſcorching and fiery, than in the third voyage that the admiral made, they being becalmed eight days, about the ſame place, were afraid the ſun would have ſet fire to their ſhips; for all his caſks flew under decks, the hoops ſmoaking as if they had been ſet on fire, and the wheat was all in a ferment; and the ſalt fleſh was, as it were, boiled again, and ſtunk ſo, that, to avoid infection, they were forced to throw it overboard.

The admiral was thus purſuing his voyage, in which patience was his moſt neceſſary habit, to endure the terrible perſecution of his own people; when on the 11th day of October of the ſame year, it pleaſed God to crown all his invincible ſufferings, and the confidence he had in him, firſt, by manifeſt ſigns of land, which in ſuch occaſions do generally put a ſtop to all complaints and afflictions, and are the beginning of joy and content, which is followed with forgetting all paſt ſufferings. The firſt thing they ſaw was the bough of a tree new cut, with its fruit on it, which though a kind of thorn, was a branch of olive to the inhabitants of this new ark; another had ſeen green fiſh, and ſome pieces of wood floating; all which were clear marks of land not far off, as to the navigators from India are the quantity of ſea weeds which meet them about ten leagues from the coaſt of Spain. The joys which ſailors and paſſengers ſhew generally at the ſigns of land, the capers they cut, and embraces they make each other, with their congratulations to the pilot, their thanks to heaven, nay, the tears they ſhed, and devout prayers they make to God and the Virgin Mary, in acknowledgment of their protection; all theſe are

not ſo much matter for my pen, as for ſight and ſenſe. All this happened to the admiral's company, which not only forgot their ſufferings, and the hatred they bore to the author of them, but they run and threw themſelves at his feet, as admiring and congratulating his conſtancy, and begging his pardon for ſo many hard thoughts, and as hard words, they had entertained, and let fly againſt him: he received them all with embraces and marks of benignity, aſſuring them that by the end of that day they ſhould be within ſight of land, and having ſaid this, he went upon the higheſt part of the ſhip's ſtern, as being deſirous to be the firſt, that ſhould give them the good news of diſcovering land.

There was a rent of ten thouſand Maravedies a year for the firſt diſcoverer, which made them all look out with great attention; ſome on one ſide, and ſome on the other ſide of the ſhip, fixing their eyes where they thought it was moſt probable to find land; but it was about two hours before midnight, when Admiral Columbus diſcovered a light, and calling to two officers, ſhewed them; and preſently he perceived that the light changed place, for it was a light carried from one houſe to another, as was known afterwards when they landed: they ſailed on towards that light, and about two hours after midnight they diſcovered land, which was at the ſame time made by the other ſhips in company, whereupon there were many claims for the Albricias; but at laſt they agreed that the Albricias belonged to the admiral, becauſe he firſt diſcovered the light: this was confirmed by Ferdinand and Iſabella, King and Queen of Spain, and ſettled upon the ſhambles of Seville, as the beſt fund for the admiral.

Herrera, the chronologiſt, makes his reflections upon this light, and moralizes upon it, that it ſignified the ſpiritual light, which thoſe nations wanted, and which was now brought to them from Europe by theſe diſcoverers; as a proof likewiſe of the piety of the catholic Kings, who having made war upon the Moors for three hundred and twenty years, had hardly finiſhed it; but they put their ſhoulders to this new conqueſt, to ſpread by their means the glory of the goſpel, and make the voice of it to be heard to the utmoſt limits of the earth, making out by this manifeſt proof, how firm ſupports they were to the faith, ſince they were conſtantly employed in propagating of it. Thus far Herrera: to which I may add, that the light Columbus ſaw in the middle of the night, was the tacit working of reaſon, which being buried in profound errors, did yet throw out ſome ſparks from under thoſe aſhes, and cry to heaven for the enlivening ſpirit to deliver it, and by the means of Chriſt revive it, ſo as to enlighten that gentiliſm, ſo long overwhelmed in darkneſs, and for ſo many ages paſt buried, as it were, in the ſhadow of death.

Thus it was; and as ſoon as day broke they landed: the admiral carried with him the royal ſtandard ſpread, the other captains having in theirs the banners of this conqueſt, which were prepared, and had in them a green croſs crowned, and round about the names of Ferdinando and Iſabella, to ſignify the hopes that thoſe princes had entertained to make ſubject, and lay at the feet of the crucified Jeſus, the crowns and ſceptres of thoſe powerful monarchs of that new world; they themſelves having firſt ſubmitted their own, that there might be no crown, command, nor lordſhip, but that of the exaltation of the croſs.

To this end, as ſoon as the admiral landed, kneeling down with all his company, he kiſſed it once, and twice; and lifting up his eyes to heaven, all in tears, he adored our Lord God of all things, who had brought him thither, thanking him for his favour, and doing homage to him in the name of thoſe people, who were to be brought to his knowledge; in ſign of all which, and the poſſeſſion he then took, he called that

ſland Saint Salvador: he raiſed alſo a moſt beautiful croſs, which was a declaring war to hell, to make it renounce the poſſeſſion of that land, which for ſo many ages it had tyrannized over.

The admiral being roſe up, they all approached, and not only embraced him, but carried him upon their ſhoulders in triumph, as having performed the greateſt work that ever man attempted, or brought to paſs. Immediately after this, the admiral, in preſence of a notary, took poſſeſſion of that land in the name of Their Catholic Majeſties, and cauſed himſelf to be owned as viceroy, and as ſuch they began to own him, and obey him in all things.

This iſland, which we ſhall call Saint Salvador, was about fifteen leagues in length, very woody, and having good water, with a lake of freſh water in the middle of it, and well inhabited by the Indians, who called it in their tongue Guanaani; and it is one of thoſe which ſince have been called the Lucaicks. It is nine hundred and fifty leagues from the Canaries.

CHAP. VI.

WHEN the Indians ſaw ſuch great bulks in the ſea, with great ſails, and the whole unlike their canoes, and they were drawn near the ſhore, they remained aſtoniſhed and beſide themſelves, becauſe, though by their motion they gueſſed them to be living things, yet for their bigneſs they took them for ſome ſtrange ſea-monſters, never ſeen before on thoſe coaſts. The ſhips came to an anchor cloſe by the ſhore, and the admiration of the Indians increaſed ſtill ſo much the more, ſeeing white men come out of them with beards and cloaths; yet they did not run away, but drew near without fear, the rather when they ſaw that the Spaniards began to preſent them with bells, needles, and other things of Europe, which pleaſed them extremely, as being new to them: in return they gave the Spaniards gold, proviſions, and other things of their country: they came ſome in their canoes, and ſome ſwimming to the ſhips, where it was wonderful to ſee how they valued every thing, even to the bits of glazed diſhes, or broken earthen ware, that lay about the ſhips, which they gathered up as jewels which they had never ſeen. And to ſay truth, moſt things borrow their value from their rarity; and for this reaſon they had as little value for gold and pearls, which were things very common among them, they exchanging whole ſtrings of pearls, and ſome of them as big as peaſe and ſmall nuts, for needles and bells, as happened in the iſlands of the Margarita; ſo great is the difference in the eſtimation of things common, or rare ones. The admiral having here got an account of ſome other iſlands, went out to diſcover them; and the ſecond he found he named Santa Maria de la Conception, dedicating it to the queen of heaven: the third he called Fernandina, of the King Don Fernando: the fourth he named Iſabella, in conſideration of his miſtreſs Queen Iſabella. Of all theſe he took poſſeſſion in the name of Their Majeſties, by ſetting up their royal ſtandard before a publick notary, with the ſame ſolemnity and ceremonies obſerved in the taking poſſeſſion of the firſt iſland.

On a Saturday, the 29th of October, they diſcovered the famous iſland of Cuba, where the Havana is: there the Indians, frighted to ſee the Spaniards, whom they thought deſcended from heaven, went to them kiſſing their hands and feet. The admiral's laſt diſcovery was of the iſland called Hiſpahiola, where he met with a great deal of gold, and ſome birds and fiſhes, like thoſe of Caſtile. Here the Cacique Gua-

Guacanagari received him with much humanity; and in his land he made the firſt colony, or ſettlement of Spaniards, which he named the city of the Nativity.

The Spaniards generally were received in theſe and other the Barlovento Iſlands, and on the coaſts of Terra Firma, with much love and kindneſs, very few of the Indians offering to reſiſt them. On the contrary, they all were pleaſed with their coming upon their lands, furniſhing them with all that the country afforded, and preſenting them with gold, pearls, parrots; contenting themſelves with a return of a very ſmall value. Of the European things, thoſe they ſeemed moſt to mind, were needles; and at firſt they could not imagine what they were good for; but being told they were to ſew, they anſwered they had nothing to ſew; but yet they kept them, becauſe they had never ſeen any thing of iron or ſteel. They were much ſurprized at the uſe of ſwords, and particularly when they experienced their ſharpneſs; for at firſt they uſed to take hold of them by the edge with great ſimplicity.

The admiral, as viceroy of thoſe new kingdoms, began to govern, as he diſcovered them; and that he might regulate them the better, by conſulting Their Majeſties in his doubts and difficulties, he made two voyages backwards and forwards to Spain, ſtill making in his returns diſcovery of ſome new iſlands, and amplifying the monarchy, as hiſtorians do relate at large, to whom I refer myſelf, not to engage in matters which are far from my ſubject; but I cannot but make ſome reflection upon what happened to this great man. Who would not have thought, conſidering the happineſs with which he had executed all that he had deſigned, in the moſt difficult ſubject in the world, that he was eternizing his felicity, and putting fortune under his feet? But that no one may ſtrive to do it, but that all may know how conſtant is her volubility, and how perpetual the motion of her wheel, and that there is no human power, nor ſtar, can fix it, I will relate here briefly what befel him.

Let him who governs be undeceived once for all, and know, that to ſit upon a throne, and take poſſeſſion of power, is to be a mark for the cenſure of the good and bad to aim at; it is juſt putting himſelf into the hands of anatomiſts, to be taken in pieces, and examined to the very bones, and very often envy oppreſſes innocence by feigned accuſations: this is not the place to examine that of the admiral; I only know that there were ſo many complaints, and ſuch appearances of miſdemeanors alleged at court againſt him; as, that he did not advance the converſion of the Indians, but made them work to get gold, deſiring more to make them ſlaves than Chriſtians; and taking no care to maintain them, and ſuch other imputations; as moved Their Catholic Majeſties to ſend the commander De Bobadilla to examine the truth of what was alleged, and to do juſtice in requiſite caſes; writing at the ſame time a kind letter to the admiral, that he ſhould let the commander execute their orders.

But he exceeding his commiſſion, and the intention of Their Majeſties, took all he informations againſt the admiral and his brothers, and without hearing them, made himſelf be owned for judge and governor, giving rewards, and publiſhing that he came to relieve the oppreſſed, and to pay their ſalaries, and put all things in good order. This drew over to him all thoſe who had any grudge to the admiral, and moſt of the common ſort ſided with him; ſo he entered into the houſes of the admiral and his brothers, ſeized their goods and their papers; all which he might ſafely do, without any reſiſtance, for the admiral was away: he ſent to ſeize him and his brothers, putting irons upon their feet, and ſo ſhipping them into a veſſel, called a Caraval, he ſent them away for Spain, to give an account of themſelves.

When they came to put irons upon the admiral, there was none ſo bold as to do it, out of the reſpect that all had for him; and if he had not had in his family a rogue of a cook,

a cook, who was villain enough to do it, they had not found any one to execute ſo barbarous a command. When Columbus ſaw himſelf put in chains by his own ſervant, it is ſaid, that ſhaking his head, he pronounced theſe words, full of reſentment for his uſage: "Thus the world rewards thoſe who ſerve it; this is the recompence that men give to thoſe who truſt in them. Have the utmoſt endeavours of my ſervices ended in this? Have all my dangers and ſufferings deſerved no more? Let me be buried with theſe irons, to ſhew that God alone knows how to reward and beſtow favours, of which he does never repent; for the world pays in words and promiſes, and at laſt deceives and lies."

Having ſaid this, the ſhip ſet ſail; and as ſoon as he came to Spain, Their Majeſties, when they were informed of the priſon of the admiral, were much concerned; for by no means had that been their intention. They ſent for him to come before them; but his tears and ſighs were ſuch, that in a great while he could not ſpeak; at laſt he ſaid, aſſuring Their Majeſties of his great zeal for Their royal ſervice, which had always been his guide, that if he had failed in any thing, it was not out of malice, nor on purpoſe, but becauſe he knew no better.

Their Majeſties comforted him, and particularly the queen, who favoured him moſt; and after ſome time, in which the truth of the matter was made out, they ordered, that all that the commander Bobadilla had confiſcated of the eſtate of the admiral and his brothers, ſhould be reſtored to them; as alſo, that the capitulation with them ſhould be obſerved, as to their privileges and exemptions. After this, the admiral returned a fourth time to the Indies, in an honourable way; and employing himſelf in new diſcoveries, he arrived upon the coaſt of Terra Firma of America, the ſecond of November 1502, and coaſting along by Cubija, arrived at the port; which, becauſe it appeared ſo good a one, and the country ſo beautiful, well cultivated, and full of houſes, that it looked like a garden, he called Puerto Bello, or the Fine Port, having diſcovered other iſlands in the way, and endured very bad ſtorms. At laſt, returning back by ſome of thoſe places which he had diſcovered, taking, as it were, his leave of them, and returning to Spain, to order there a better ſettlement of affairs, he died at Valladolid, where the court was, making a very Chriſtian end, and giving great ſigns of his predeſtination.

CHAP. VII. — *After the Death of Columbus, the Caſtilians purſue the Diſcovery and Conqueſt of the New World.*

AMONG thoſe who accompanied the admiral in his firſt diſcovery, there was one Vincent Yanes Pinzon, who being a rich man, ſet out four veſſels at his own charge. He, at his return to Spain, ſet ſail from the ſame port of Balos upon new diſcoveries: he firſt came to the iſland of St. Jago, which is one of the Cape Verd iſlands: he ſet ſail from thence the thirteenth of January in the year 1500, and was the firſt who paſſed the equinoctial line, by the north ſea, and diſcovered Cape St. Auguſtin, which he called the Cape of Conſolation, taking poſſeſſion of it for the crown of Caſtile; from thence he found the river Maragnon, which is thirty leagues over, and ſome ſay more at its entrance, the freſh water running forty leagues into the ſea; then coaſting towards Paria, he found another river very large, though not ſo broad as Maragnon: they took up freſh water out of it, twenty leagues at ſea. He diſcovered in all a coaſt of ſix hundred leagues to Paria, and loſt two ſhips in a terrible ſtorm that he endured.

We

We have ſeen alſo in the laſt chapter, that Columbus had diſcovered the iſland of Cuba, though he could never ſail round it, being hindered by the ſtorms and ill weather; ſo he died without knowing whether it was an iſland or no, for he judged it to be rather a point of ſome continent; but it is a very large iſland, with many fair ports, and mountains full of precious odoriferous woods of cedar, ebony, and many others; and there are in it ſeveral cities of Spaniards, and among the reſt the ſtrong fortreſs of the Havana, which is a Scala or rendezvous for the galleons and flotas, loaded with ſilver from the Weſt-Indies: this is one of the beſt fortifications the King of Spain has in all his dominions. But, in my opinion, that which makes this iſland moſt valuable, is, the good nature and docility of thoſe who are born in it; which was a product of that ſoil before ever the Spaniards trod it, as they ſhewed to Columbus, and thoſe who came after him, receiving them with all kindneſs and humanity.

To further what the Admiral Columbus had begun, God raiſed an inſtrument in the perſon of Vaſco Nunnes de Balboa, one of the firſt diſcoverers of this new world; a man of good underſtanding, as he ſhewed upon the occaſion which I ſhall now relate. He was, with others, upon the diſcovery with General Enciſco, the governor: they came to a place called Uraba, and as they entered the port, by negligence of the ſteerſman, the governor's ſhip ſtruck upon a ſand, and was loſt, nothing being ſaved out of her but the lives of the men, who got into the boats, but naked, and in danger of periſhing for want of proviſion. Vaſco de Nunnes ſaid, that he remembered there was not far off a river, the banks of which were inhabited by much people: he guided them thither; and the thing being found to be as he had ſaid, he gained great reputation among them all. They came thither, and found the Indians in arms againſt the Caſtilians, whoſe name was already become odious to thoſe nations: they made a vow to our lady, to dedicate to her the firſt ſettlement and church to the honour of her image, under the title of Sancta Maria la Antigua, or the Ancient St. Mary, which to this day is venerated in Seville; and to ſend her many rich gifts of gold and ſilver, which one of them, as a pilgrim, ſhould carry in the name of the reſt. Being encouraged by this vow, they fell upon the Indians, and obtained the victory.

Preſently they made a ſettlement, and built a town, dedicated to the virgin, calling it Sancta Maria el Antigua of Dairen, becauſe that was the name of that river. After this, to accompliſh their vow, they ſent the promiſed preſents to the devout image of the virgin.

The good opinion of Vaſco de Nunnes increaſing thus daily, and having cunningly ordered it ſo, that Enciſco reſigned his government, they choſe Vaſco Nunnes in his room: at firſt with an aſſociate; but he found means in time to be alone, as it was neceſſary he ſhould, in point of command, being to overcome ſuch difficulties as were to be met with at every turn: and, indeed, he knew how to make himſelf be both feared and beloved, having a very good ſpirit of government. In the new diſcoveries he undertook, he came firſt to the lands of the Cacique Ponea, and not finding him at home, he deſtroyed them: he paſſed on to the lands of the Cacique Careta, who not caring to enter into war, received him peacefully, and treated him as a friend. This Cacique Careta had a kinſman, who was a lord, that lived further in the country, and his name was Suran; who perſuaded another neighbouring prince, called Comagre, to make a friendſhip with the Caſtilians: this prince had a very fine palace, which aſtoniſhed them; and particularly when they ſaw, in a kind of chapel or oratory, ſome dead bodies lying, covered with rich mantles, and many jewels of gold and pearls; and being aſked, whoſe bodies theſe were, they anſwered, of their predeceſſor; and that, to preſerve them from corruption, they had dried them with fire. The king careſſed

careſſed the Caſtilians, and gave them great preſents: he had ſeven ſons, and one of them, more liberal, gave the Spaniards a preſent of near four thouſand peſos of fine gold, and ſome pieces of rare workmanſhip: they weighed it, and taking the King's fifths, they began to divide the remainder. In the diviſion, two ſoldiers fell out about their ſhare: the Cacique's ſon, who had made the preſent, hearing the noiſe, could not bear it, but coming to them, ſtruck the balance where the gold was weighing, and threw it all upon the ground, ſaying, "Is it poſſible you ſhould value ſo much a thing that ſo little deſerves your eſteem? and that you ſhould leave the repoſe of your houſes, and paſs ſo many ſeas, expoſed to ſuch dangers, to trouble thoſe who live quiet in their own country? Have ſome ſhame, Chriſtians, and do not value theſe things: but if you are reſolved to ſearch gold, I will ſhew you a country where you may ſatisfy yourſelves." And, pointing with his finger to the ſouth, he told them they ſhould ſee there another ſea, when they had paſſed over certain high mountains, where they ſhould ſee other people, who could go with ſails and oars as they did; and that paſſing that ſea, they ſhould meet with vaſt quantities of gold, whereof the natives made all their utenſils; and that he would be their guide, and conduct them with his father's vaſſals; but that it would be requiſite they ſhould be more in number, becauſe they were powerful kings, who could hinder their paſſage: giving them by this the firſt notice of Peru and its riches.

This was the firſt knowledge and light which the Spaniards got of the South-Sea, and of the gold and riches of its coaſts, which gave them all great joy; ſo that they were impatient to ſee the hour of breaking through all obſtacles, to ſee that ſea never before heard of, and enjoy the riches of it. Vaſco Nunnes immediately diſpoſed all things, and went out of Dairen, in the beginning of September in the year 1513, and going along the ſea-ſide, to the habitation of the friendly Cacique Careta, he went towards the mountains by the lands of the Cacique Ponca; who, though at firſt he endeavoured to oppoſe their paſſage, yet being adviſed by the Indians of Careta, who accompanied the Caſtilians, he preſented them with gold and proviſions, and gave them guides; they, in return, giving him looking-glasses, needles, knives, and other baubles, which they valued very much. Then they began to mount the mountain through the country of a Cacique called Quareca, who appeared in arms, and attacked the Spaniards: he had a long robe of cotton, but all his men were naked. They began to ſkirmiſh, and threaten, by their actions, to hinder the paſſage; but no ſooner did they hear the noiſe, and feel the effects of the muſkets, and find ſome to fall, but they turned their backs, flying like a herd of deer, frighted to ſee the fire, and hear the ſound of the vollies, which appeared thunder to them, and thought the Spaniards had thunderbolts at their command; ſo they left the paſſage free for them. The Indians of Careta had ſaid, that from their country to the top of the higheſt mountain, there was the time of ſix ſuns; for by that they meant ſo many days' journey; but the ways were ſo bad, that they employed five and twenty days to get to the top. A little before they were at the higheſt, Vaſco Nunnes de Balboa cauſed a halt to be made, deſiring to have the glory of having himſelf been the firſt man that ever ſaw the South-Sea. And ſo it was: he goes alone, diſcovers that vaſt ocean, and the large bays of the South-Sea, called Pacifick; and upon his knees, with tears in his eyes, lifts up his eyes to heaven, giving thanks to the great Creator of all things, for having brought him from ſuch remote parts to contemplate that which none of his anceſtors had ever ſeen: he made a ſign after this to his companions to come up, and ſo they all run in haſte, puſhing one another on; and when they were on the top, where there is a full proſpect of the ſea, it is not to be imagined the content they all received in admiring that vaſt

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and ſmooth liquid chryſtal, which not being animated, did not on its ſide give leaps of joy, nor go out of its bed to the tops of the mountains, to welcome thoſe who came to deliver it from the tyranny the devil exerciſed over it, by infeſting it with ſtorms and tempeſts, and infecting the air with the breath of idolatry, which was breathed in all thoſe parts, both eaſt, weſt, north, and ſouth. Oh! if all the creatures of that world could have come one by one to ſee the good that was coming to them by means of the Goſpel, which dawned in thoſe mountains; or, if the predeſtinated of that new world could have viewed from their cottages, and poor habitations, or rather from the deep night of their errors and ſins, the ſun that was beginning to enlighten them from that high mountain, and the virtue and efficacy of grace, which then began to appear to reconcile them with God, and the blood of Chriſt, which like a great river was falling through thoſe precipices, till it ſhould bathe the utmoſt parts of the earth, and give life to thoſe, who, being fallen and covered with the dark ſhadow, did not only not hope for life, but not ſo much as know it; how would the children have leaped out of their cradles, who, to go into paradiſe, expected nothing but baptiſm, as has happened to great numbers, who juſt expired when they were made an end of baptizing; and the old men, who wanted only the knowledge of the Goſpel to ſhut their eyes, and being reconciled to God, fly into his glory, how they would open them, and lying upon the ground, fly, at leaſt with their ſpirit if they could not with their body, to receive the preachers of the Goſpel, who brought peace and a general pardon for their ſins! All the other predeſtinated, every one according to his ſtate, who have by this means been ſaved, (which are infinite) how they would melt and cry with joy, to hear this news, which is as welcome to them, as that of the coming of Chriſt to the holy fathers in *limbo*, who were expecting it with ſuch languiſhing deſires!

CHAP. VIII.—*Vaſco Nunnes de Balboa purſues the Diſcovery of the South-Sea, and dies.*

VASCO Nunnes de Balboa, having performed his devotion, and thanked our Lord, with all his companions, for ſo great a favour done him, as to bring them to that place, and for the favour he was about to ſhew to that new world, by the means of the preachers of the Goſpel, to whom he thus opened a way to publiſh it; he then bethought himſelf of his ſecond obligation, which was to his King; in conformity to which, he took poſſeſſion, in His Majeſty's name, for the crowns of Caſtile and Leon, of the place where he was, and of the ſea which he diſcovered from thence; cutting for this purpoſe many trees, and making great croſſes which he ſet up, and writ upon them the names of Their Majeſties.

After this they began to go down from the mountain, marching always prepared for any encounter that they might have with the Caciques in their way; ſo, though the Cacique Chiapes oppoſed them with his people, who were ſtout and many, yet by ſetting the dogs at them, and beginning to fire their muſkets, they were ſoon routed. This made the Cacique offer terms of peace, and receive and make much of the Caſtilians, preſenting them with gold; and he proved ſo good a friend, that he pacified many other Caciques, who were in arms, to hinder the paſſage, who likewiſe made their preſents of gold.

From the town of Chiapes, Vaſco Nunnes ſent out, to diſcover the coaſts of the South-Sea, the captains Franciſco Pizarro, Juan de Eſcara, and Alonſo Martin, each to a different place: this laſt found two canoes dry on the ſhore, and the ſea below them above half a league: he wondered to ſee them ſo far from the ſea; and, as he was

conſidering it, he perceived the ſea coming very faſt in, and did not ſtay long before it ſet the canoes on float: he entered into one of them, and took witneſs that he was the firſt European that had ever been upon that ſea. The tides on that coaſt ebb and flow every ſix hours, ſo as great ſhips will be left on ſhore, the water retiring ſo faſt, that it gives great admiration when it returns, to ſee ſo great a ſpace covered ſo faſt, that it appears an inundation.

Vaſco Nunnes having advice of this, came down alſo to the coaſt; and, going into the ſea up to the mid-leg, with a naked ſword in his hand, ſaid, that he took poſſeſſion of it, and all the coaſts and bays of it, for the crowns of Caſtile and Leon; and that he was ready with that ſword, as often as it ſhould be neceſſary, to make good that claim, againſt all that ſhould oppoſe him. The Indians were in great amaze at this new ceremony; and they were more ſurprized, when they ſaw him, againſt their advice, and that of the Caciques, venture to croſs the gulph of Pearls, to diſcover the riches of it in that commodity; though it had like to have coſt him dear, for he was near periſhing in croſſing that arm of the ſea. Now let us ſee (in order to undeceive thoſe who ſhall read this) how little this courage and boldneſs availed this generous conqueror of the new world, and the great things his invincible mind had brought to paſs. All his military prudence and cunning, by which he made himſelf be reſpected by unknown nations, availed him little; for this ſo fortunate a great captain had a tragical end: he loſt his life in Dairen at his return, finding there the governor Pedrarias, who came to ſucceed him. The King, in ſending this man, had recommended to him the perſon of Vaſco Nunnes de Balboa, and ordered him to made uſe of his council, as of one who had honoured him by his bold undertakings, and to whom, for a reward, he ordered the governments of Panama and Coiba, and the admiralſhip of the South-Sea, which he had diſcovered, and on which he had already built four ſhips, and got together three hundred men, to go upon the diſcovery of Peru. But the ſaid Pedrarias commanded him on ſhore, and there ſeizing him, cauſed him to be beheaded publickly as a traitor. The crier went before him, crying, as is cuſtomary, that he was a traitor; which, when Vaſco Nunnes heard, he ſaid it was a lie, and that no man had ſerved the King with more zeal, nor more fidelity than he, nor more deſired to extend his monarchy; but all his complaints were like voices in the deſart, which were of no force againſt envy and emulation, which had prevailed in his enemies, and which can never fail againſt thoſe who govern. His death was much reſented, and appeared very unjuſt in Spain, becauſe, indeed, the King loſt one of his braveſt captains, and one who would have diſcovered Peru with more facility, and without all thoſe tumults, which ſince happened; for his prudence, valour, and zeal, were above the ordinary ſize.

It cannot be denied, but that the ſentence may be juſtified according to the depoſitions of witneſſes; but yet it was a great argument of his innocency, that which he himſelf ſaid to the governor Pedrarias, which was, that if he had in his heart to make himſelf maſter, and independent, as they accuſed him, he would not have obeyed his call as he did, and leave his ſhip without any difficulty; for he had then three hundred men all at his devotion, and four veſſels, with which he might have been ſafe, and gone upon new diſcoveries, if his conſcience had accuſed him. They add here, that an aſtrologer had told him, that that year he ſhould ſee ſomething extraordinary in the heavens, he ſhould be in guard againſt ſome great misfortune that threatened him; and that if he eſcaped from it, he ſhould be the moſt powerful and happy man in the whole Indies. And that accordingly he did ſee this ſign, but laughed at it, as thinking himſelf in ſo high a ſtate.

CHAP. IX.—*The Diſcovery of the South-Sea, its Ports and Iſlands, is continued.*

IT is a common paſſion in thoſe who govern, either to oppoſe the deſigns of their predeceſſors, or at leaſt not to execute them by their means, nor by their creatures, that their aſſiſtance may not leſſen the glory, which they pretend by making themſelves the authors of the enterprizes. As we have already ſaid, Pedrarias ſucceeded Vaſco Nunnes de Balboa in the government, juſt as he had made the diſcovery of the South-Sea; and, though the King had recommended the perſon of Nunnes to him, yet he could not be brought to grant him leave to follow his diſcovery, though the Biſhop of Dairen adviſed it very earneſtly; but he had reſolved to give this good morſel to a creature of his, called Captain Gaſpar Morales; to whom he added, as companion, Captain Franciſco Pizarro, becauſe of the experience he had, having been already employed in the diſcovery.

They ſet out from Dairen, and got to the South-Sea, and embarking there in canoes, they came to the Iſle of Pearls, which the Indians called Tarargui. Theſe by this time began to endeavour to hinder the Spaniards from ſetting in their lands, but they were not able to do it, their forces being ſo much inferior to thoſe of the Caſtilians, who, paſſing from one iſland to another, came at laſt to the largeſt, where was the king of almoſt all thoſe nations, who took arms againſt the Spaniards, having a brave number of men, and well choſen; but they not being uſed to fire-arms, they ſoon yielded and came to compoſition: to which they were brought alſo by the fear of a famous dog that was in the Chriſtian camp, who uſed to fall upon them like a lion; and they having never ſeen an animal of that ſort, did flee him as a devil, becauſe of the miſchief he did amongſt them; for they being naked, he could faſten any where without danger. The Chiapeſes, our friends, preſently interpoſed; and telling the King what dangerous enemies the Spaniards were, and of what importance their friendſhip was, they being invincible, he at laſt was prevailed upon to grant them peace. They came to his palace, which was very ſumptuous, and, as they judged, better than any they had ſeen yet. The King received them with marks of friendſhip; and, as a token of it, cauſed a baſket of ruſhes full of pearls, which weighed five marks, to be given them; amongſt which, there was one which had but few fellows in the world, (for it weighed ſix and twenty carats, and was as big as a ſmall walnut,) and another as big as a muſcat-pear, perfect and oriental, and of a fine colour, weighing ten half ſcruples. The firſt came from hand to hand, till it was in the empreſs's, who valued it as it deſerved, as is told by Antonio de Herrera and others. They preſented the King, in return, with the uſual preſents of pins and needles, bells, knives, and other baubles of Europe, which the Indians valued much. The Spaniards not being able to forbear laughing, to ſee the value they put upon them, the King ſaid to them, "What do you laugh at?" And having heard what it was, he ſaid, "We might more juſtly laugh at you, for valuing things ſo much which are of no uſe in life, and for which you paſs ſo many ſeas. As for theſe knives and hatchets you give us, they are very uſeful inſtruments to men." This was not the only return the King had for his pearls; for he had the precious pearl of faith by their means: for growing very fond of them, and being by them inſtructed, he and all his family received the Chriſtian religion, which was the principal end to which the Caſtilians directed all their enterprizes. They made a ſolemn chriſtening; and the King, to treat his ſpiritual fathers, who had engendered him in the Goſpel, carried them to ſee the pearl-fiſhing, which was in this manner: The Indians dived to

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the bottom, having about their necks a bag full of ſtones, that they might ſink the faſter; and it ſerved them for a ballaſt to keep them ſteady while they gathered the oyſters, that the water might not buoy them up. The greateſt oyſters are about ten fathom deep; for when they do not go to feed, they keep as low as they can, and ſtick ſo faſt to the rocks, and to one another, that it is very hard to looſen them; nay, it happens ſometimes, that while they ſpend too much time in doing it, their breath fails them, and they are drowned: but, generally ſpeaking, they are not in danger, becauſe, as they gather the oyſters, they put them in their bag, and lighten it of the ſtones, and before their breath fails, they come up again with their fiſh. They open the oyſters, and take out the pearls, which uſe to be many if they are ſmall, and few if they are large. They ſay, that among thoſe they preſented the Caſtilians at this time, were ſeveral of the bigneſs of large peaſe and hazle-nuts; with which they returned very well pleaſed to have made a diſcovery of ſo rich a treaſure, as well as of the rich one they had given in exchange to the King and his people, by making them Chriſtians.

CHAP. X.—*Of the Diſcovery of the River of Plata, and the Coaſt of Chile, by the Straights of Magellan.*

WE have hitherto gone by the North-Sea to the Terra Firma, and the diſcovery of the South-Sea, with intent to follow the diſcoveries of this new world to its utmoſt bounds, which is the kingdom of Chile, to which all this narrative is directed. We ſhall follow this order by the ſame ſteps that the firſt conquerors went; but while they are diſpoſing all things for this great enterpriſe, it will not be amiſs to leave the South-Sea, and follow thoſe who endeavoured to diſcover the coaſts of Chile by the North-Sea. The firſt we ſhall follow is Captain Juan Dias de Solis, who ſailing from Spain the eighth of October 1515, ran along the coaſts of Braſil, till he diſcovered the famous river of Plata, which was ſo named, not from any ſilver that is found near it, or on its banks, but from ſome plates of that metal which the Indians gave the Spaniards; which ſilver they had brought from the country about Potoſi, with which they had communication by the means of the Tucuman Indians, who are the neareſt to that ſide to Peru. Solis entered that mighty river, which, if I am not miſtaken, is threeſcore or ſeventy leagues over at its firſt entrance, and is known at ſea by its freſh water, at firſt; till being further in, they can ſee the mountains and land that bound it. This river is one of the moſt famous in the world, of ſweet and excellent water, being obſerved to clear the voice and lungs, and is good againſt all rheums and defluctions; and all the nations of the Paraguays, who drink this water, have admirable voices, ſo tunable, that when they ſing they appear organs; and therefore they are all inclined to muſic; and thoſe who come from abroad mend their voices by living there. I know one who was born in Chile, and had naturally a good voice, which he mended extremely by living in Paraguay; but when he left that country, and came to Tucuman, he loſt his improvement, as he himſelf told me. This river has another property, which is, that it petrifies the branches of trees which fall into it. The governor Hernan Darias, born in Paraguay, a gentleman of a ſingular talent for government, had in his houſe a whole tree all of ſtone which had been taken out of this river. Likewiſe there are formed naturally of the ſand of this river, certain veſſels of various figures, which have the property of cooling water. There are alſo certain *cocos de terra*, which contain ſtones in them, which at a certain time are, as it were, ripe, and burſt, dicovering amethyſts within them; they burſt open with a great noiſe.

There are alſo bred upon its banks moſt beautiful birds of ſeveral kinds; and in its ſtreams great variety of fiſhes, very dainty, and in great quantity. The river is navigable every where in canoes, but not with the ſame canoes, becauſe of the prodigious fall that is in the midſt of it, the whole river precipitating itſelf into a deep gulph, from whence it runs many leagues, till it empties itſelf into the ſea. The noiſe that this fall makes, the foam that it raiſes, the whirlpools it cauſes, by the rencounter of its waters, is not to be imagined. The land on both ſides this river is very fertile; on the weſt ſide, which is the Tucuman ſide, correſponding to Buenos Ayres, there are ſeveral cities, as St. Jago de Eſtero Cordoua, St. Michael la Rioga, and Eſteco Juzuy and Salta, which border upon Peru: theſe cities are not very populous, becauſe they are in the midſt of the land, and far from commerce with both ſeas; but they do increaſe very much, particularly Cordoua, which, amongſt other properties, has that of producing rare wits in the univerſity governed by the Jeſuits, who may match their profeſſors and ſcholars with thoſe of any other part, as I myſelf have experienced. There are likewiſe in this diſtrict many houſes and families of men of quality and antient nobility. Higher up the river to the weſt, are alſo the cities of Aſſumption, Santa Fee de las Corrientes del Guayta, and others. The city of the Aſſumption is the chief, and was peopled by gentlemen that came firſt to the Indies, and is ſince much increaſed in people, but not in riches; becauſe it being ſo far within the land, cannot have ſufficient vent for its commodities, which are chiefly ſugar, and preſerved fruits; among the reſt they are famous for a dried ſweet-meat, called Ladrillos, which are ſlices of cetron, done up in ſugar, in the form of a tile; but the beſt ſweet-meat they have they will give in great abundance for an apple, or any European fruit. In all this tract of land there are three governments, which are alſo biſhoprics, to wit, Paraguay, Rio de la Plata, and Tucuman.

Higher yet on the eaſt ſide are many heathen nations, which have others that anſwer them on the weſt; and among theſe are diſtributed thoſe famous miſſions which our fathers of the ſociety of Jeſus have founded.

I am ſorry I am inſenſibly engaged in this matter; and I muſt own I have mentioned that which I cannot well explain. This is not a place for panegyrics, nor does the thread of my hiſtory admit of ſuch large digreſſions; yet I cannot but ſtop a little, and give ſome conſideration to that we may call miracles of grace, which are performed in thoſe deſarts, of which I myſelf have been an eye-witneſs, having lived ſome time in that holy province, to which I owe all that I am. But who can explain what thoſe apoſtolical men deſerve in the ſight of God, who ſeem to have nothing of man but what is neceſſary to make their lives more admirable, which they lead like angels in human bodies.

Who would not wonder to ſee in thoſe mountains and ſolitudes men ill fed, worſe lodged, naked, painful, and in anguiſh for the ſouls of others, when they might ſave their own with leſs trouble, enjoying the good morſels and merry days which, without ſin, and ſometimes meritoriouſly, they might have in their own country among their friends, and in the beſt of Europe? Who can but admire to ſee ſo many youths baniſh themſelves, and, renouncing all preferment, reſolve to paſs all their lives like hermits, for the love of God, and zeal of the ſalvation of ſouls? Is this a work of nature? and can human force arrive to this of itſelf? Let us go out from this conſideration, leſt it be like a loadſtone to draw us in further; and yet let me fly as far as I will, I cannot hinder my heart from being with them, and deſiring to end my days in this employment. They who deſire to ſee the fruit of theſe miſſions of our company, the numbers of the gentiles which they have brought from ſolitudes to live in cities,

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the great progreſs of the faith, and the numbers of martyrs they have conſecrated to God, let him read the book made of all this by that apoſtolical man Antonio Ruiz de Montoya; and then he will be extremely edified, and admire the work, as well as the author. And ſo I return to the thread of my hiſtory.

Juan de Solis being landed here, found little reſiſtance from the Indians, who are neither ſo cruel nor ſo warlike as in other parts; ſo he took poſſeſſion of all that tract, in the name of Their Majeſties, for the crowns of Caſtile and Leon, as was always the cuſtom of the firſt diſcoverers. And he for himſelf took poſſeſſion of thoſe ſeven feet of earth which death allows to thoſe he ſeizes, let them be never ſo ambitious, though while they are alive a whole world will not ſuffice them. He lies buried there; and an end was put to his diſcoveries.

Much about the ſame time, there were at His Catholic Majeſty's court the two famous captains Ferdinand Magellan and Ruy Falero, offering their perſons, valour, and induſtry, for to find out, either towards the ſouth or weſt, an end to America, or ſome canal or ſtraight by which both ſeas might communicate with each another; and ſo the navigation from Europe might be made in the ſame ſhips, in which they might go round all its coaſts. They were treating upon this ſubject; and the Portugal embaſſador made it his buſineſs to oppoſe Magellan, becauſe being fallen out with his king about this diſcovery, he deſired he might not make it for the crown of Caſtile; but at laſt the king having heard at Saragoça, in preſence of his council, the reaſons and grounds that Magellan and Falero went upon, he accepted their ſervice, and honoured them with the habits of St. Jago; and having ſettled the capitulation with them, His Majeſty commanded the ſquadron to be made ready, and named the captains and officers of it; and having heard that there was a diſpute riſen between Magellan and Falero, about who ſhould carry the royal ſtandard or flag, and the like, he ordered Falero, as not yet well recovered of a diſtemper he lay under, to ſtay at home, and mind his health; and, in the mean time, that another ſquadron ſhould be got ready, in which Falero ſhould follow.

The firſt ſquadron being ready, His Majeſty commanded the aſſiſtant of Seville, that he ſhould deliver the royal ſtandard to Magellan in the great church of Santa Maria, of Victory of Triana, taking at the ſame time from him an oath of fidelity, or homage, according to the cuſtom of Caſtile, that he ſhould perform the voyage with all fidelity, as a good and loyal vaſſal of His Majeſty. The captains took likewiſe an oath to obey Magellan in all things. He, after many vows, having recommended himſelf and his voyage to our Lord, went on board the ſhip called the Trinity, and the treaſurer general in the Victory (ſo famous for being the firſt that went round the world). The other ſhips were the Conception, St. Jago, and St. Anthony.

They ſet ſail the tenth of Auguſt in the year 1519. They took the iſle of Teneriff, then made the coaſt of Guinea, and arrived at Rio Genneiro; from whence they ſailed on St. Stephen's day, and having had a great ſtorm, they entered into the river of Plata: here they ſtayed eight days; and then following their voyage, they had another terrible tempeſt, which carried away their forecaſtle, and forced them to cut away their poop. They made vows to our Lady of Guadalupe and Monſerrat, and to St. Jago of Gallicia. It pleaſed God to hear them, and they took ſhelter in the river of St. Julian, but not all; for one of their ſhips was loſt: the men got on ſhore, but enduring ſo much by land to port St. Julian by hunger, that they ſeemed ſkeletons when they came to their companions.

While they were wintering in this river, either idleneſs, or the great ſufferings they had undergone, and thoſe which they feared, made them mutiny againſt Ferdinand Magellan. There were ſome of his ſhips that revolted; but he with great boldneſs, and no leſs art, made himſelf maſter of them, puniſhing ſome of the guilty, and pardoning others; and for Juan de Carthagena and his companion in rebellion, he ſet them aſhore when he ſet ſail, leaving them a good proviſion of bread and wine. It was never known whether this was ſufficient to ſuſtain them, till they ſhould meet with ſome of thoſe giants which had been with the ſhips, and had been treated by Magellan, who perhaps received them.

Magellan ſeeing the winter over, as he thought, ſet ſail the ſeventh of November, which is when the ſummer begins in thoſe parts; and having by land obſerved what he could of the ſtraight, they paſſed with great good fortune in twenty days, and then ſteering north, they coaſted along Chile, which they left ſomething at large, as having no knowledge of that land, Peru being not yet diſcovered. After this, they came to the Philippine Iſlands, in one of which this moſt courageous captain, and famous Portugueſe, Magellan, died by the hands of the natives, or to ſay better, by his own raſhneſs and over-boldneſs.

Some years after, which was that of 1534, Simon of Alcazova, a Portugueſe gentleman of the habit of St. Jago, and gentleman of the chamber of the King, a great coſmographer, and one very expert in navigation, having been employed many years for the crown of Caſtile, made an agreement with the king to diſcover and people two hundred leagues from the place where Albagro's government ſhould end, which was in Chile. He ſailed from St. Lucar on the 21ſt of September 1534, with five good ſhips, and two hundred and fifty men; and without ſeeing land from the Gomera to the ſtraight of Magellan, only having touched at cape Abre Ojos, and the Rio de Gallegos, about twenty-five leagues from the ſtraight's mouth, he entered them on the 17th of January 1535, having endured ſo much thirſt, that the cats and dogs were come to drink wine, and the people were ready to periſh. They found a great croſs erected by Magellan, and the wreck of the ſhip which he loſt there. There appeared about twenty Indians, who gave ſigns of much joy to ſee the Spaniards. They followed their courſe, keeping ſtill the right hand, as the ſafeſt; but yet they had ſo furious a ſtorm, that it carried away half their ſails: it blew ſo, that they thought the ſhips would have been carried away through the air. They took ſhelter into a port; and becauſe the ſeaſon was ſo far advanced, they perſuaded their general Alcazova to go out of the ſtraights, which he did, and return to the port of Lions, or of Wolves, which was a very good one.

While they were wintering in thoſe parts, they reſolved to enter further into the country, and make diſcovery of thoſe riches which the Indians told them were there; ſo having celebrated maſs, they bleſſed the banners, and the captains took a new oath of fidelity and obedience; and with this they ſet out about 225 men, having fifty arcabuſes, ſeventy croſs-bows, four charges of powder and ball, which every one carried with his bread, which was about twenty-ſix pounds weight. Thus they marched about fourteen leagues; and there Alcazova, being a heavy man, could go no further, which was his ruin; he named a lieutenant, againſt whom the men mutinied; for having gone ninety leagues, and their proviſion failing, they reſolved to go back, as they did, though they had met with a river full of fiſh; and that their guides told them that a little further they ſhould come to a great town, where there was a great deal of gold; for the inhabitants wore plates of it in their ears, and upon their arms: but nothing could move them: and as one miſchief ſeldom comes alone, they reſolved

to make themſelves maſters of the ſhips at their return, and to kill all that ſhould oppoſe them; and ſo they executed it. But God Almighty puniſhed them immediately; for as they were going out of port, they loſt their admiral; and then having but one ſhip, durſt not venture for Spain, but put in at Hiſpaniola, where Doctor Zuravia, of the audience of St. Domingo, chaſtized the moſt guilty. And thus the diſcovery of Chile, for that time, and that way, was diſappointed: for God reſerved that honour for another.

CHAP. XI. — *Of the Diſcovery of other Parts of America before that of Chile.*

WHILE the ſhips are making ready to go to the diſcovery of Peru, it will not be amiſs to touch upon the diſcovery of ſome other parts of America by the by, that at leaſt the order of time, with which the diſcoveries preceded each other, may be underſtood; and what we are to ſay afterwards about Chile will be made plainer, that being our chief deſign.

It has been ſaid already, in its proper place, how the Admiral Columbus diſcovered the Terra Firma, or continent of America, in his fourth voyage from Spain to the Indies, and found the port of Puerto Bello the ſecond of November 1502. We have alſo ſaid how Vaſco Nunnes de Balboa having founded Sancta Maria la Antigua of Dairen, diſcovered the South-Sea, and took poſſeſſion of it in the month of September or October in the year 1513, as alſo that in the year 1515, Juan Dias de Solis diſcovered the river of Plata the firſt of all diſcoverers.

Now we will add what is known about the diſcovery of other lands; amongſt the which, one of the firſt was that of Yucatan, which was undertaken by Captain Franciſco Hernandes de Cordoua, in the year 1517, and the Adelantado of it is at this day Don Chriſtoval Soares de Solis, a gentleman of an antient and noble family in Salamanca. This ſame year other Caſtilians diſcovered the land of Campeche, where, in a chapel of the Indians, full of their idols, they found painted croſſes, of which they were not leſs aſtoniſhed than rejoiced, ſeeing light in darkneſs, and the trophies of Chriſt by the ſide of Belial; which, at laſt, by the Spaniards' arrival in thoſe parts, were better known to thoſe barbarous people. In the year 1518, the Licentiado Eſpinoſa, who was named deputy to the governor Pedrarias, founded the city of Panama, which is the canal by which all the treaſure of Peru paſſes to Spain in the galleons. This city has not increaſed ſo much as many others of the Indies, becauſe being ſituated near the equinoctial line, its temperature does not agree with thoſe born in Europe; but yet there are many conſtitutions that do very well there, becauſe of the great riches that are eaſily acquired there: and thoſe who ſeek them, think no air bad. There are a great many people of quality: for there is a biſhopric, a royal Audiencia, or court of judicature; a tribunal of royal officers, and a chapter of canons, ſeculars and regulars. But that which in my judgement is moſt commendable in it, is the piety, mercy, and liberality of its inhabitants. I have this year received advice, that by the negligence of a female ſlave, the greateſt part of the city was burnt; for the houſes being of wood, if one take fire, it is hard to ſtop the flames: there was loſt in this a great maſs of riches, a great part of the roofs falling on the cathedral; and a little after, there being a gathering made, though this misfortune had concerned almoſt every body, who for that reaſon were leſs in a condition to contribute by way of alms, which ſome of them wanted, yet they gave above twenty thouſand pieces of eight, and went on contributing. This was an extraordinary mark of their charity; but

but the ordinary ones, in which they conſtantly ſhow their generoſity, are to ſtrangers and paſſengers who paſs from Spain to the Indies, who moſt of them are at a loſs till they meet with ſome patron, or friend, or countryman, to aſſiſt them; and they would often be reduced to great extremity, if this were not, as it is, a common inn for all thoſe people; for in the college of our company alone, though it is not yet founded, but lives upon alms, I ſaw when I was there, a cloth laid at the porters' chambers, where every day they provided for, and fed about fifty or ſixty paſſengers, with bread and fleſh in abundance. The ſame is done by other convents; and the ſeculars, I ſaw, gave them money and other neceſſaries. This, as to the city of Panama, founded in the year 1518, in which year the religious friars of St. Dominick and St. Francis paſſed from the iſland of Hiſpaniola, and began to found convents in Terra Firma, and the pearl coaſt; from whence theſe two holy orders purſued their miſſion through all the land, enlightening it with their doctrine and holy examples; by which they have made ſuch a progreſs among the Indians, that the preſent flouriſhing of the faith is owing to them, to the great ſaving of the Indian ſouls. The year 1519, Ferdinand Magellan made the diſcovery of the coaſt of Chile; and the ſame year Hernando Cortes went from the point of St. Antonne la Havana to Corocha, which is the firſt point of Yutacan eaſt, to begin the conqueſt of the great empire of Mexico; of which, and the noble actions of that great man, it is better to be ſilent than to touch upon them only by the by, as we ſhould be forced to do; this being not a place to explain the ſtate and grandeur of that mighty monarch Monteſuma, who was ſovereignly obeyed in ſo many and ſuch great provinces. Who can expreſs in few words all this, and the felicity that accompanied Cortes in all his undertakings, which were ſuch as they appeared poſſible only after they were done, ſeeming otherwiſe ſo high and difficult, as to be inacceſſible to the extremeſt boldneſs? Indeed, it cannot be denied, but that he was aſſiſted by heaven, whoſe inſtrument he was in planting the Chriſtian faith among thoſe gentiles, and ſhewing ſuch reverence to the preachers of it, as might ſerve the Indians for an example; a quality which will always give reputation to princes, both before God and men.

In the year 1528, the king ſent a colony to the Rio de la Plata, having agreed with the merchants of Seville for that purpoſe. The city they founded was that of Buenos Ayres, which is on the ſide of that river, in that part of it where it grows narrow from its large entrance at ſea; and the river there is not above nine leagues over. In the year 1532, Cedro de Heredia of Madrid ſailed from Spain, and founded the city of Carthagena, which is the firſt Scala which the Spaniſh galleons make coming from Spain for the Indies, to fetch ſilver. It was ſo called, becauſe its port was like that of Carthagena in Spain; for the old name of the Indians was Calamari. He had at firſt an engagement with the Indians; and though they ſhowed themſelves very brave, yet he beat them, and founded the city, which is at preſent one of the beſt of the Indies, being walled with ſtone, and ſo ſtrong, that we may name it as an impregnable fortreſs.

It is ſituated in an iſland, divided from the continent by a ſmall arm of the ſea, which ebbs and flows, and comes to the bog of Canapote: there is a bridge or cauſeway there, that goes to the Terra Firma. The port is very ſafe, and good ſhips go into it by two mouths or entrances, a greater and a leſs; the great is ſandy; and the year that I was there, they told me that it was almoſt ſhut up by the ſand which a river caſts up againſt it; and now they write me word, that it is quite filled up, ſo that there is no going in but by the leſſer entrance, which makes it ſo much the ſtronger, and it is defended by a good caſtle; beſides which the city is well garniſhed with artillery,

ſo

ſo as not to fear an invaſion. The plot of the city is very beautiful, all the ſtreets being handſomely diſpoſed, the houſes of free ſtone, high and noble; ſo are the churches and convents, particularly that of the Jeſuits, which makes a beautiful proſpect to the ſea. Here is a cuſtom-houſe for the king, and a houſe called of the Rigimiento, with other public buildings; it is very populous, and of a great trade, by reaſon of the coming of the galleons; and from them they have wine and oil; corn they have in their own territory: there reſides a biſhop, and there is a tribunal of the Holy Inquiſition. The governor hath both the civil and military command: it increaſes every day in riches, being ſo ſituated, that it ſhares all the riches of Peru, Mexico, and Spain.

In the year 1540, Captain Franciſco de Orellana diſcovered the great river of the Amazones, which is called alſo Orellana, and by a common miſtake Maragnon; and went from it to Spain, where, upon the relation he gave of its greatneſs, the Emperor Charles V. ordered him three ſhips, with people, and all things neceſſary to make a ſettlement. But this had no effect, becauſe having loſt half his men at the Canaries and Cape Vert, he was too weak when he got thither; yet he attempted to go up the river in two large boats, to which his fleet was reduced; but finding his wants of every thing, he came out again, and went by the coaſt of Caracos to the Margarita, where he and his people are ſaid to have died. About twenty years after, the viceroy of Peru ſent a good fleet under Pedro de Orſua: but this miſcarried alſo, becauſe he was killed treacherouſly by Lopes de Aguirre, who rebelled with the fleet; but having miſſed the entrance of the river, he landed on the continent, near the iſland of Trinidado, where he was executed by order from court. Some years after this the ſergeant-general, Vincente de los Reyes Villalobos, Alonzo de Miranda, and the general Joſeph de Villa Mayor Maldonado, undertook the ſame deſign, but with the ſame fortune, death taking them away; ſo that they gave over at that time all attemps on Peru and Quito ſide. But ſtill the fame of this river continuing, Benito Maciel, general of Paria, and ſince that governor of Maragnon, and Franciſco Coello de Caravallo, governor likewiſe of Maragnon and Paria, attempted its diſcovery up the river; and though they were backed by the king's royal commands, yet there were many croſs accidents as to hinder the execution of their enterprize.

The fathers of our company of Jeſus attempted likewiſe this diſcovery, by the motive of ſaving ſo many ſouls; but beginning with a nation called the Cofanes, their progreſs was ſtopped by the cruel death given to Father Raphael Fernandes, who was preaching the faith to them. Thirty years after, which was 1537, ſome friars of the order of St. Francis, moved by the zeal of amplifying the glory of the goſpel, and by order of their ſuperiors, went from Quito, in company of Captain Juan de Palacios, and ſome ſoldiers: they began to ſail down this river, and came to the Encabellados, or people with long hair; but not finding the harveſt ready, they returned to Quito, except only two of their lay-brethren, which were Domingo de Brieva, and Friar Andres de Toledo, who with ſix ſoldiers more ſailed down as far as the city of Paria, a ſettlement of the Portugueſe, about forty leagues from the ſea. They paſſed by the city of St. Luis de Maragnon, where the governor Jacomo Reymondo de Moronna, by the information he had from theſe friars, cauſed ſeven and forty canoes to be got ready, and embarked upon them ſeventy Spaniards, with 1200 Indians, ſome of war, and ſome to help to row, under the command of Captain Pedro Texeira, who, having ſpent a whole year in his voyage, came at laſt to the city of Quito, having diſcovered and navigated the whole river of the Amazones, from its entrance into the ſea to its ſource or riſe.

The viceroy of Peru, who at that time was the Count de Chinchon, being informed of this voyage of Captain Pedro Texeira, reſolved to ſend two perſons back with him for the crown of Caſtile, who might give a perfect relation of the diſcovery.

At this time the city of Quito was governed by Don Juan Vaſques de Acunna, as corregidor for His Majeſty over both Spaniards and Indians, and who at preſent is corregidor of Potoſi, who very zealouſly offered his perſon for one, and his fortune to raiſe people at his own charges, and provide them with all neceſſaries; but the royal Audientia, conſidering how much he would be wanted in his office, where his prudence, experience and zeal, had ſhowed themſelves, refuſed to let him go, and choſe a brother of his, that they might not totally deprive his illuſtrious family of that glory. This brother was a father of our company of Jeſus, and named Father Chriſtoval de Acunna, who was rector of the college of Cuença, and gave him for companion Father Andres de Arrieda of the ſame company, who was profeſſor of divinity in the ſame college.

They ſet out from Quito in the year 1539, and having navigated the whole river, which, according to their account, is thirteen hundred and fifty-ſix leagues long (though Orellana makes it eighteen hundred leagues), obſerved exactly the riſe of this great river, its ſituation, its courſe, latitude, and depth, the iſlands it makes, the arms into which it is divided, the rivers it receives, the riches, quantities, temperature, and climate of its ſhores, the cuſtoms and manners of that multitude of people that inhabit it, and particularly of thoſe famous Amazones. All which may be ſeen in a treatiſe made of it by Father Chriſtoval de Acunna, printed in Madrid; and it is a relation that deſerves credit, he being an eye-witneſs, and having examined various nations as he went.

Theſe informations were well received in Madrid; but the revolutions which ſucceeded in thoſe kingdoms hindered all further progreſs, and prevented thoſe holy deſigns for the converſion of that great part of America. There are infinite numbers of Indians that inhabit the iſlands, and other parts of this river. It is ſaid they have one ſettlement, that is a town, above a league in length. And now, omitting many other conqueſts, made much about the ſame time in the iſlands and coaſts of the North-Sea, and that which was made in the South-Sea by Xil Gonçales de Avila, in the land of Nicaragua, in the year 1522, let us attend (for it is high time) to the diſcovery of Peru, of which we ſhall treat more at large, becauſe it has a connexion to that of Chile.

CHAP. XII. — *The Diſcovery of Peru is given to Don Franciſco Pizarro, and Don Diego d'Almagro, and Hernando Loque; and how much they endured in it.*

THE captains Don Franciſco Pizarro, and Don Diego Almagro, in company with the ſcholaſtic of the cathedral church of Dairen, called Hernando de Loque, came to the governor Pedrarias, and deſired of him, as friends, the favour of being employed in the diſcovery and conqueſts of thoſe coaſts which run ſouth from Panama, where lies the powerful kingdom of Peru, of which at that time there was little light; and for this they propoſed their reaſons; among which, that which was of leaſt value, they relied moſt upon, and that was their experience they had attained under their general Vaſco Nunnes de Balboa. They met with little difficulty with the governor; for ſo long as they did not deſire any aſſiſtance of the King's treaſure, but ventured their own and their lives, they eaſily obtained leave to undertake what they would. They preſently

ſently bought one of the ſhips which Balboa had built for that deſign; and having got together threeſcore men, and four horſes, (for at that time horſes were a great rarity,) Hernando de Loque ſaid maſs; and when he came to conſecration, he divided the Hoſtia, or ſacrament of the body of Chriſt, into three parts, of which he took one, and gave the other two to his two companions, offering themſelves to God, with intention to propagate among thoſe people his glorious name, and plant the Chriſtian faith amongſt them by the predication of the Goſpel. Thoſe who were preſent ſhed tears out of devotion, and at the ſame time pitied theſe undertakers, looking upon their enterprize as a mad one.

About the middle of November 1524, Don Franciſco Pizarro having left Don Diego Almagro behind him, to get more people together, ſailed from Panama to the Iſle of Pearls, to the port of Pinnas, (the laſt diſcovered by Balboa, and after him by Paſqual de Andagoya,) and went up the river of the Cacique Biru, or Biruquete, to the country of Chocama, where he ſtopped to wait for his companion Almagro. The hardſhips that the Caſtilians endured of hunger and other inconveniences are not eaſily to be told: twenty died ſtarved, and the reſt were ſick, having no other ſuſtenance than the bitter Palmetos; yet Captain Pizarro, without ſhewing the leaſt weakneſs, took care of them all with great affection, which made them all love him. At that time Don Diego d'Almagro, his companion in the undertaking, came to him: he was received like an angel, for the relief he brought: he had loſt one of his eyes by the ſhot of an arrow, in a rencounter he had with the Indians. They both together purſued their conqueſt; but proviſion failing them once more, and their ſoldiers being almoſt naked, and ſo perſecuted with moſquitoes, which are infinite there, that they could not live, they began to talk of returning to Panama, to which Pizarro himſelf was well enough inclined; but Almagro exhorted them rather to die than loſe patience, offering to return to Panama for new ſuccour, while he ſhould leave his companion in the iſland of Gallo.

The effect that this had, was, that he found the government altered in Panama, and Pedrarias ſucceeded by Pedro de los Rios, who hearing of the miſerable condition of thoſe Caſtilians, would not ſuffer Almagro to return to them, being deſirous they ſhould give over the enterprize as impracticable. He ſent for this end a gentleman of Cordoua, called Juan Tafur, a man of excellent parts, equal to his noble deſcent, with a commiſſion to bring thoſe people back, that they might not all periſh. He came, and ſignified his order to Pizarro, at which he was out of all patience, ſeeing it would be the ruin of his project. Tafur ſeeing this, took a prudent medium, which was, that he ſhould draw a line between him and Pizarro, who ſhould be at the head of his men: and Tafur told them, that all thoſe who reſolved to return to Panama, ſhould paſs the line, and come on his ſide. Having ſaid this, they began to paſs the line, all to thirteen and a Mulatto, who ſaid they would die with Pizarro: and ſo Tafur returned with all the reſt to Panama.

Captain Francis Pizarro remained with his thirteen companions in an iſland, which, for the greater proof of his courage and conſtancy, happened to be the Gorgona, which is a picture of hell for the cloſeneſs of its woods, the aſperity of its mountains, the infinity of its moſquitoes: the ſun is ſcarcely ever ſeen in it for the continual rains that fall.

When Tafur came to Panama, and his two friends Almagro and Loque found that Pizarro ſtaid behind with ſo few companions, it is not credible how much affliction they ſhewed: they ſolicited the preſident, that at leaſt another veſſel might be ſent to bring them away, in caſe they found them alive; and after many difficulties, at laſt a ſhip was ordered after them, but upon condition to be back at Panama in ſix months: the

ſhip ſailed, and came to the place where Pizarro and his companions were left. Who can expreſs the joy and ſurprize of thoſe poor abandoned wretches, when they deſcried at a diſtance the ſails of the ſhip? At firſt they could not believe their own eyes; for the deſire and longing for a thing makes it appear leſs probable to come to paſs: but at laſt it arrived; and Pizarro ſeeing himſelf maſter of a good veſſel, could not forbear attempting ſome diſcovery.

They ſailed as far as the country of Tumbeſe, which is very rich; though the Tumbeſe Indians ſaid, that their riches were nothing in compariſon of what they might ſee farther. The lord of that country having heard of the arrival of the Caſtilians, he ſent preſently to viſit them at their ſhip, with twelve baſkets of proviſions, and, among the reſt, a ſheep of that country, which was preſented to them by the virgins of the temple, as to men who ſeemed deſcended from heaven, and ſent by God for ſome great thing. The ambaſſadors came; and wondering to ſee the ſhip with white men who had beards, they aſked them, Who they were? whence they came? and what they pretended? They anſwered them, that they were Caſtilians, vaſſals of a powerful monarch, who, though ſo great, had yet a greater over him, whom he owned, with all other kings, and who is in heaven, and is called Jeſus Chriſt, in whoſe name they came to undeceive them of their errors in worſhipping gods of ſtone and wood, there being but one God, Creator of all things, whom we all ought to worſhip. They explained to them, that there was a heaven and hell, the immortality of the ſoul, and the other myſteries of our faith.

The Indians ſtood ſtaring and gaping, hearing this doctrine, which had never been heard of before in their country; for they believed, that there was no other king in the world but their King Guayanacapa, nor other gods but their idols. Among all the things they admired, there were two chiefly: the one was a negro; for they never had ſeen one, and did believe that his colour was ſome ſtrong dye; for which reaſon, they beſtowed much pains in waſhing his face to get it off; but when they ſaw that he was rather blacker, and that he ſhewed at the ſame time white teeth, for he could not hold laughing to ſee their ſimplicity, they fell a laughing too, and could not but admire ſuch a ſort of men. The other thing was the crowing of a cock, which the captain ſent them with a hen of Caſtile: every time he crowed, they aſked what he ſaid? for they thought his voice articulate, like the human voice; which is an argument that they had not that kind of fowl: and Garcilaſſo de la Vega is of that opinion, anſwering the objection of the Indian name they give a hen, that is, Atagualpa, which, he ſays, was a name given by the Indians after the coming of the Spaniards. The Spaniards having refreſhed themſelves well on ſhore, began to deſire of Pizarro to return to Panama, and gather a greater force, that which he then had being very diſproportioned to his undertaking: he yielded to their perſuaſions, having, for this time, made diſcovery only as far as a place called Santa, which is very near the equinoctial line; and having had a more certain account of Cuſco, its riches, and the mighty empire it was head of. So taking with him ſome Indians, and ſome patterns of the gold, as a teſtimony of the diſcovery, he returned to Panama.

CHAP. XIII. — *Captain Franciſco Pizarro returns to Panama, goes from thence to Spain, and purſues his Conqueſt.*

PIZARRO being come to Panama, went with his two companions to the Governor Don Pedro de los Rios, to repreſent to him their reaſons for continuing their diſcovery, upon

upon account of the riches of the country, as well as the planting the faith in the capital of ſo great a monarch, and ſo in all its dominions: but the governor would not agree to it; and ſo they reſolved that Pizarro ſhould go to Spain, to propoſe it to the King himſelf. He undertook the voyage; and, to give more credit to what he ſhould ſay, he took along with him ſeveral things proper to the country he had diſcovered, as pieces of gold and ſilver, ſome of thoſe ſheep we have mentioned, and ſome of the Indians themſelves clothed after the manner of their country. The King was much pleaſed with them; and Pizarro, in his firſt audience, began to propoſe the intent of his diſcovery, the great hardſhips he had endured, he and his companions going naked, and almoſt ſtarved, expoſed to the moſquitoes and poiſoned arrows of the Indians; and all this, having ſpent three years in this ſort of life, for the increaſe of the Goſpel and His Majeſty's royal dominions. His Majeſty heard him with much attention and goodneſs, ſhewing great compaſſion for his ſufferings, and ordered a gratification for himſelf, and his two companions, as alſo the thirteen who would not forſake him: he received all his memorials, and ordered them to be diſpatched to his mind, having firſt made an agreement with him proportionably to his great merits. They did not believe in Spain (and that is an old diſeaſe every where) all that Pizarro ſaid of the riches of Peru, and of the palaces and houſes of ſtone which he had ſeen, till he ſhewed them the pieces of gold and ſilver which he had brought with him; and then the fame of that land began to ſpread itſelf, and with it the covetouſneſs of ſharing thoſe treaſures, every one blaming the governor of Panama for not having given the neceſſary aſſiſtance to the diſcovery.

Pizarro being diſpatched with the title of Adelantado of the firſt two hundred leagues he ſhould conquer, having alſo a new coat of arms, and other privileges granted to him; and taking with him four ſtout brothers that he had, he embarked for the Indies with one hundred and twenty-five Caſtilians more. He left Sanlucar in January 1530, and arrived at Puerto Bello, where he was received with great joy by his companions and friends, who were all pleaſed with the favours the King had beſtowed upon them by his means: only Don Diego de Almagro was not ſo well pleaſed that Pizarro had made a better bargain for himſelf than for him, his partner in all the undertaking; he made his complaint to him, and reſolved to part company, and diſcover and conquer by himſelf: but being aſſured, that as ſoon as the firſt two hundred leagues ſhould be conquered, he would uſe his intereſt to have him made Adelantado of two hundred more before any of his brothers; and ſo ſuffering himſelf to be perſuaded, they agreed anew, and fell to preparing every thing for their enterprize. He remained at Panama; and the Adelantado, with his brothers, went from thence with a good crew of men, being to be followed by Almagro, as before. To make ſhort about the things performed by this great conqueror, the great riches he got, and among the reſt an emerald as big as an egg, which was preſented to him, we will ſuppoſe him at the iſland of Pura in war with the Tombezinos; and there he came to a clearer information of the riches of Cuſco, and the ſtate in which that monarchy was at preſent: and becauſe he had received a ſpecial command, and was himſelf inclined to propagate our ſacred religion, as the beſt means of furthering his own deſign, the firſt thing he did, in landing upon the continent of Peru, was to build a church to God, to give a beginning to the ſpiritual conqueſt of ſouls. His firſt ſettlement was at Pura, where was built the firſt church that was ever erected in thoſe kingdoms. While he was employed in this, he ſent out to diſcover more lands, to know more of the ſtate of the country. There he learnt the diviſion that was between the two brothers Guaſcar and Atagualpa, which was occaſioned by the death of their father Guayanacapa, who was a moſt powerful monarch,

narch, and among other ſons had theſe two, which were now in war, and ſome of his ſubjects followed the one, and ſome the other. Guaſcar was the lawful heir, but not ſo brave and warlike as Atagualpa, who, though a baſtard, yet becauſe he had followed his father in his wars from a child, drew to himſelf a great part of the kingdom, with which he made war upon his brother, with hopes to prevail.

The Adelantado Don Franciſco Pizarro reſolved to have an interview with Atagualpa, who was the neareſt to the place where he was. So putting his truſt in God, he ſet out with his ſmall army, more to be valued for its bravery than its number, which nevertheleſs was feared and reſpected in its march. He came near the place where Atagualpa had his camp, which was near fifty thouſand men, and ſent him his ambaſſadors on horſeback, which was a new thing in that country, to give him advice of his arrival, and the reaſon of it, which was, to perſuade His Majeſty, and his vaſſals, to give obedience to the true King of Glory, from whom is derived all the power and command that princes have on earth. Atagualpa received the ambaſſadors in a ſtately tent, ſhewing in all his behaviour a ſovereign majeſty; and though his courtiers were in great admiration of the horſes, which they had never ſeen, yet he kept his countenance, and concealed the effects ſuch a novelty might have over him. He looked upon them with ſome pleaſure, and not as on a ſtrange thing he had never ſeen; for the horſes beginning to corvet, ſome of his Indians run away, whom he preſently cauſed to be put to death, for having ſhewed cowardice in his royal preſence. He anſwered the ambaſſadors courteouſly, ſhewing the pleaſure he ſhould have to ſee and hear their general; and ſet a day for it, telling them, that they ſhould not be diſturbed, nor afraid to find him and his people in arms, for it was his cuſtom to uſe them to it.

The day came; and Atagualpa marching in order with his army to the place where the Spaniards were drawn up, he diſcovered to his captains the mind he had to make an end with thoſe ſtrangers, who had been ſo bold as to enter into his country, and come ſo near him without having any reſpect to his royal power; but he ordered them not to kill them, but to take them alive, becauſe he would uſe them as his ſlaves; and as for the dogs and horſes, he reſolved to offer them in ſacrifice to his gods. The Caſtilians, who were not totally ignorant of this falſe appearance of peace and friendſhip, though they were ſo few that the Indians were four hundred to one, yet they did not loſe courage; but with confidence in God expected the encounter, taking their poſts, and preparing every thing for it, though ſecretly, that they might not be thought the aggreſſors. Therefore he drawing near, the Adelantado ſtaid for him with only fifteen men, the reſt being retired and hid, and ſent him an embaſſy by a friar, who carried the Goſpel, and told him, "That in thoſe books were contained the faith, by which he and his people might be ſaved, and they brought it him from God Almighty."

The King heard the friar, and took the maſs-book out of his hands, looking earneſtly upon it; but not knowing how to read it, and taking it all for a jeſt and a fiction, he threw the book up into the air, making a ſign at the ſame time to his people to fall on; which they did; and then the Adelantado lifting up a handkerchief, which was the ſignal to our men, they played upon them with their muſkets on one hand, and the dogs and horſemen attacked them on the other, ſo that the victory ſoon appeared for the Caſtilians; God Almighty having reſolved to deſtroy that monarchy of the Ingas, and to remove that obſtacle to the propagating of the faith, and to put that land into hands that ſhould increaſe it, as Their Catholic Majeſties have done. They took the King Atagualpa priſoner; but treated him with all reſpect due to his royal perſon, as the hiſtorians relate more at large. While this happened, which was on a Friday, a day dedicated

to

to the croſs, in the month of May in the year 1533, the army which Atagualpa had ſent againſt his brother Guaſcar, near Cuſco, overcame him and took him priſoner, and were bringing him to Atagualpa, without knowing any thing of what had happened between him and the Caſtilians; but on the way Guaſcar learned that his enemy was a priſoner too; and Atagualpa was at the ſame time informed of the victory he had obtained; he hearing it, ſhook his head, and cried, "O fortune! what is this, that I am this day a conqueror, and conquered?" Guaſcar moderated his grief with the news of his enemy's misfortune, thinking that the Caſtilians would revenge him on the tyrant, who pretended to take from him his lawful inheritance.

Atagualpa, though a priſoner, began to make reflections in this manner: If I cauſe my brother to be put to death, how do I know how the Caſtilians will take it? and whether they will not put me to death for this, and remain lords of the land? If I let him come on, and he ſpeaks with them, the juſtice of his cauſe will ſpeak for him, and I muſt periſh; for I cannot expect mercy from any. What remedy? He found it cunningly, as he thought: he feigned a great ſadneſs, with a deſign that the Pizarros, who viſited him every day, ſhould aſk him what was the matter. They did accordingly; and, ſeeing him ſo afflicted, deſired to know the cauſe of that extraordinary grief. He anſwered deceitfully, that having received the news that his generals had put to death his brother Guaſcar, it gave him an exceeding grief, of which he was not to be comforted; becauſe, though they were enemies, yet he was his brother; and he could not but be much concerned at his death. All this was feigned, to ſee how the Spaniards would take it; and finding they did not ſeem offended at the thing, he ſent orders immediately to his generals, who were coming on with his brother, that they ſhould put him to death preſently by the way; which they did, by drowning of him in a river, which amongſt them is an infamous death. His cries to Heaven to revenge his unjuſt death, were uſeleſs at that time.

But let no man give it to another to ſave his own life; for there is not a ſhorter, nor a more certain way for him to loſe it: let him not ſtrive by politick maxims, which an unjuſt and ambitious paſſion ſuggeſts; for though that may be an appearance of ſtability, yet divine juſtice breaks through it all like cobwebs, and at length leaves no crime without its chaſtiſement. Atagualpa proved himſelf a great example of this truth, all his artifices ſerving only to afford his enemies a pretext to take away his life. He had promiſed to fill the room where they kept him priſoner, which was a very large one, with gold and ſilver, beſides ten thouſand bars of gold, and ſome heaps of jewels, as an earneſt, for his ranſom. And though this was accepted; and that he performed it according to his promiſe, yet he did not obtain what he pretended; for, inſtead of his liberty, they pronounced to him a ſentence of death, which he juſtly deſerved for having put his brother to it, and tyrannized over that which was none of his own; and becauſe of the advice the Spaniards had every day of the army that was gathering together, which if it were true, and Atagualpa at liberty at the head of them, there would have been good reaſon to fear, from his ſubtilty, great and irremediable inconveniences, which they thought they could no ways avoid ſo well as by taking his life, though with ſome hopes of his exchanging it for a better and eternal one, if it be true that before he died he was inſtructed, and received baptiſm, as ſome ſay he did.

About this time, which was in the year 1533, Don Diego d'Almagro being made marſhal, came from Panama to Tombez with a good body of men and arms; and from thence he went on to help his good friend, the Adelantado Pizarro, in his conqueſts, not letting his men do any injury to his Indians as he went. There were a hundred

hundred thouſand pieces of eight given them upon their arrival; for though they were not at the battle, yet their preſence confirmed the victory, and helped to keep Atagualpa priſoner. The remainder of the treaſure, which was above a million, was divided among Pizarro's men; and they being few, were all made rich, and in a condition to make diſcoveries of their own. The Adelantado ſent his brother Hernando Pizarro to Caſtile, with the news of this happy progreſs of their diſcoveries, and of the propagating the Chriſtian faith in the converſion of the Indians; and he alſo carried with him the claim of Don Diego d'Almagro to two hundred leagues of land beyond his brother's, of which he was likewiſe to be Adelantado. All this he negotiated very much to the content of all; and in the year 1534, there was granted, in Toledo, to Don Diego d'Almagro the government of that which they called the new kingdom of Toledo, which began at a place called Las Chinchas, where the territory of Pizarro ended, and extended itſelf to the Straights of Magellan.

CHAP. XIV. — *The News of the Government of Don Diego d' Almagro is brought to him; and he goes upon the Diſcovery of that of Chile.*

DON Franciſco Pizarro had given commiſſion to Don Diego d'Almagro, to take poſſeſſion of Cuſco, when the news came of the government of two hundred leagues given him by His Majeſty, to begin from the Chinchas. This cauſed great diſturbance; for it was believed that Cuſco would fall into this diviſion; and the friends of Don Franciſco Pizarro, judging this of great prejudice to Pizarro, that the marſhal, even by his commiſſion, ſhould find himſelf in poſſeſſion of Cuſco, they adviſed him immediately to revoke the powers he had given, which he did; and this was the firſt cauſe of the diſturbance in Peru, which made afterwards ſo great a noiſe, and for which they both loſt their lives. But I being to write the hiſtory of Chile, and not of Peru, ſhall leave the reader to thoſe hiſtorians who treat of it at large. This news being known in Truxillo, one Diego d' Aguero ſet out to carry it to Almagro, who was upon his march to take poſſeſſion of Cuſco. He overtook him at the bridge of Acambay; and he having received it with great moderation, ſhewed himſelf above the greatneſs of his fortune, and gave him as an Albricias, or preſent for his good news, ſeven thouſand Caſtilians, which are near twenty thouſand ducats; and by this news he was moved to change his deſign of conquering a people called the Chiriguænaes, and treated of that of Chile; for he ſuppoſed it would fall into the government he was to have, and (as Herrera ſays) moved by the informations he had of the great riches of Chile.

To prepare himſelf for this enterprize, which was like to be very chargeable, he cauſed a great deal of ſilver to be melted in Cuſco, to draw out the King's fifths. Amongſt other things, there was a man's burden of gold rings to be melted down; and one Juan de Lepe being by, and taking a fancy for one of them, begged it of Marſhal Almagro, who ſhewed himſelf ſo much a gentleman, and ſo liberal, that he ſaid preſently, that he ſhould not only take that ring, but that he ſhould open both his hands, and take as many as could lie in them; and hearing he was married, he ordered him beſides four hundred crowns as a preſent for his wife. He ſhewed another piece of liberality to one Bartholomew Peres, for having preſented him with a ſhield, which was to order him likewiſe four hundred pieces of eight, and a ſilver pot weighing forty marks of ſilver, and had for handles two lions of gold, which weighed three hundred and forty pieces of eight; and to one Montenegro, who preſented him with the firſt Spaniſh cat that ever came to the Indies, he ordered ſix hundred pieces

of eight. There are a great many ſtories more of his liberality and charity too, he being very generous and noble minded. Having diſpoſed all for his enterprize of Chile, he cauſed proclamation to be made, that all thoſe who had not ſome particular employment to ſtay them at Cuſco, ſhould make themſelves ready to go along with him. They were all overjoyed at this, he being extremely beloved for his liberality and courteſy; and that they might furniſh themſelves with arms and horſes, he cauſed one hundred and eighty load of ſilver to be brought out of his houſe, (in thoſe days a load of ſilver was as much as a man could carry,) and twenty more of gold: this he diſtributed among them all. Thoſe who were willing, gave him bonds to pay him out of what they ſhould conquer in the land they were to diſcover; for this was the way of theſe conquerors in gaining to His Majeſty this new world, having no other pay but what they could purchaſe.

The Inga Mango, who was brother to Guaſcar and Atagualpa, had ſucceeded them in the government, as the ſon of Guayanacapa, who had alſo many others. This Inga had taken a great kindneſs for Marſhal Almago; ſo he gave him, as a companion in his enterprize, a brother of his, called the Inga Paullo Topo, and the high-prieſt Villacumu; the Spaniards call him Villaoma, or Vilehoma, that they might by their authority not only keep all his vaſſals from falling upon them in the way, but rather ſhould receive him, and make him preſents. The marſhal deſired theſe two perſons to go before, in company with three Caſtilians, and make a ſettlement or habitation at the end of two hundred leagues. The other people, and Juan de Savedra, went by another way; and when they had gone one hundred and thirty leagues from Cuſco, they founded the town of Paria. Here the marſhal overtook them; and he was likewiſe aſſured of the title of Adelantado granted him by His Majeſty, with the government of the new kingdom of Toledo, which was to begin from the borders of New Caſtile; for ſo they called Pizarro's government. His friends adviſed him to return immediately, wherever this expreſs overtook him, becauſe there was one come to the city of Los Reyes, with a commiſſion from the king to regulate limits of both governments to each of the Adelantadoes: but Almagro was ſo poſſeſſed with the ambition of conquering ſo great and rich a kingdom as that of Chile, that he did not value the land he had diſcovered, in compariſon of what he was to diſcover, out of which he deſigned to reward his friends, and the many gentlemen that accompanied him; ſo he purſued his journey; where it will not be amiſs to leave him engaged with the ſnows, and ill paſſages of the Cordillera, while we give a viſit to the great city of Lima, called otherwiſe De los Reyes, becauſe it being the head of thoſe kingdoms, we cannot well paſs it by.

This city was founded by the Adelantado Don Franciſco Pizarro in the year 1555, in a very pleaſant plain, about two leagues from the ſea, upon a fine quiet river; which being derived by drains and cuts all over the plain, fertilize it ſo copiouſly, that it is all covered with ſeveral ſorts of products, as vineyards, ſugar-works, flax, garden product, and other delightful plants: and if there be any thing they want from abroad, it is brought them ſo punctually, that all their markets are ſupplied with all manner of delicacies that can be wiſhed for.

For this and many other delights of this city, it happens to moſt people who live there, that they cannot endure to think of leaving it for any other place; ſo that it ſeems an inchanted place, where the entrance is eaſy, and the getting out difficult. I myſelf heard the Spaniſh merchants, who, the year I was there, had ſold their goods themſelves at Lima, whereas they uſed to ſell them at Puerto Bello, ſo enamoured of it, though they ſtaid but a little while there, that during our whole navigation they could talk of nothing elſe; and to ſay truth, it deſerves their praiſes; for though it cannot be

be denied, that ſome cities I have ſeen in Europe do out-do it in ſome things, yet few come near it, take it altogether: and, firſt, for riches, it is the fountain from whence all the reſt of the world drinks; its bravery in cloaths, and magnificency of the court, out-does all others: it is extraordinarily populous; for a father of our company, who had the care of catechiſing the Negroes, told me, they were at leaſt ſixty thouſand, and more, that came to confeſſion. They have ſumptuous buildings, though outwardly they make no ſhew, having no tiles; for it never rains all the year round: all the furniture, as pictures, beds, &c. are mighty rich. There are great numbers of coaches, and abundance of gentry; all the inhabitants very rich, merchants of great ſtocks, tradesmen and handicraftſmen of all profeſſions. But that which is to me moſt conſiderable, is, what belongs to the worſhip of God, and cult of religion; for the cathedral church, and all the pariſh churches are very ſumptuous, and provided of admirable learned men, which come out of that univerſity; of which thoſe of the country are not the leaſt to be valued, having furniſhed ſo many preachers and other ſubjects for all other dignities, even to the higheſt government. What ſhall I ſay of the orders of friars and nuns? I ſcarce know one order that has not two or three convents in the city, beautiful cloiſters, great buildings, and yet greater churches; ſome after the old faſhion; all with burniſhed gold from top to bottom, as are thoſe of St. Auguſtin, and St. Dominick: others after the modern way, with curious well-wrought ceilings; as is that of the Jeſuits, and of our lady of Mercedes, which are of a very fine architecture. There are eight nunneries, ſome of which have above two hundred nuns in them. There are beſides many oratories, confraternities, hoſpitals, and congregations. In our convent alone of the Jeſuits, I remember there were eight foundations of ſeveral kinds, and for people of as many different ranks and eſtates in the world. The great congregation has few in the world equal to it: the chapel of it is very large, and of a very rich material, covered with ſilk and gold, and rare pictures, with other rich ornaments belonging to it. There is here great frequentation of the ſacraments by monthly communions: the body of Chriſt is expoſed, and the church ſo adorned with muſick and ſweet ſmells, that it is a paradiſe upon earth. And amongſt other pieces of devotion performed by this congregation, there is a great entertainment or treat given once a year at an hoſpital, which is ſo magnificent, that it is worth ſeeing: the ſame is done in proportion by the other congregations.

This city is the ſeat of a viceroy, who indeed is a king in greatneſs and authority, diſpoſing of a vaſt number of places, commands, and poſts of honour and profit. There is likewiſe a rich archbiſhoprick of great authority; three courts, or royal audiencias; a merchant court, which decides all matters of trade; a famous univerſity, in which are profeſſors very learned in their profeſſions; three colleges or ſchools for youth, under the care of the fathers of our company of Jeſus, in which are about one hundred and thirty profeſſors or maſters: there are every day new foundations for orphans, widows, and to retire women from lewdneſs: there is the famous hoſpital of St. Andrew for the Spaniards; and St. Anne for the Indians; all which would require a relation by themſelves.

This is what I could not avoid ſaying about this great capital of Peru; and if it continues increaſing as it has done for this firſt age, it will not have its fellow in the world. The ſame may be ſaid of Cuſco, Arequipa, Chuquizaga, and the great town of Potoſi, which increaſe ſo, that he who is abſent a few years, does not know them when he ſees them again; and the reaſon is, that the veins and mines of gold and ſilver, which, like a loadſtone, have drawn ſo many people thither, are ſo far from leſſen-

ing, that new ones are diſcovered every day, and thoſe richer than the old ones; for which reaſon there comes yearly more people, and among them much gentry, as well as tradeſmen of all arts and profeſſions, who moſt of them ſettle and increaſe there.

CHAP. XV. — *The Adelantado Almagro enters into Chile, having ſuffered extremely by the Way.*

WE left the Adelantado Don Diego de Almagro in a place called Paria, from whence he was to purſue his journey to Chile, as he did in the beginning of the year 1535. He himſelf going before, ordered Juan de Savedra to follow with twelve horſe by the royal highway through the province of Las Chicas, the chief place of which was Topiſa, where he found the Inga Paulo, and the prieſt Villacumu, who preſented him with ninety thouſand peſos of very fine gold, it being the tribute they uſed to ſend the Inga from Chile, and which they were now ſending, without being informed of the tragical accidents that had befallen the family; and there he ſent back a great many Caciques of the countries he left behind him, and who had waited upon him thither.

The three Spaniards, whom he had ſent with the Inga Paulo, and two more who joined themſelves to them, being deſirous of making new diſcoveries, and acquiring honour, and withal making their court to the marſhal, went before, till they came to a place called Jujuy, which is a place or country where the people are very warlike, and eat human fleſh, and who kept the Ingas always in great awe. This boldneſs coſt three of the Spaniards their lives, though they ſold them dear. The Adelantado being reſolved to revenge their deaths, ſent Captain Salſedo, with ſixty horſe and foot, to chaſtiſe thoſe Indians; but they, being alarmed, had called together their friends, and made a fort to defend themſelves in, and many pits with ſharp ſtakes in them, that the horſes might fall into them; with which, and many ſacrifices and invocations made to their gods, they had reſolved to expect their enemies. Captain Salſedo found them thus fortified, and being himſelf inferior in ſtrength, ſent to the Adelantado for relief, who ſent it him under the command of Don Franciſco de Chares; but the Indians then avoided engaging, and reſolved to abandon their fort; though, not to loſe all their pains, they reſolved firſt to attack Don Franciſco de Chares, where they killed a great many, and particularly of the Indians Yanaconas; and carrying off the ſpoils, they made a ſafe retreat: the Spaniards returned back to their chief body. Since we mentioned the Yanaconas, it will not be amiſs to explain the ſignification of that word, for the better underſtanding of what follows.

The Yanaconas were, among the Indians, a people ſubject to perpetual ſlavery; and to be known, were bound to wear a ſort of habit different from the reſt. Theſe ſeeing the bravery of the Spaniards, and how much they made themſelves be feared and reſpected, began to riſe againſt their maſters, and adhered to the Spaniards, hoping thereby to ſhake off the yoke of ſlavery; and became cruel enemies to the other Indians. That which this word Yanacona now ſignifies in Chile, is, thoſe Indians who do not belong to any particular lord; for as to freedom, there is no difference, the king having made them all free alike.

From Jujuy the Adelantado marched with the vanguard, purſuing his journey, leaving the rear to the care and command of Nogaral de Ulloa. He came to a place called Chaquana, where he found the Indians in arms; for though at firſt they were frighted

with the ſwiftneſs of the horſes, yet at laſt they grew ſo little afraid of them, that they took a ſolemn oath by the great ſun, either to die or kill them all. The Adelantado attacked them, and was in great danger, for they killed his horſe under him in the engagement; but he continuing ſtill to fight them, they reſolved at laſt to retire: then he purſued his journey, with his whole army, which was of two hundred horſe, and ſomething above three hundred foot; with a great many Indians, as well Yanaconas, as others, who aſſiſted the Inga Paulo. The army being thus numerous, they began to want proviſions; and, which was worſe, they were without hopes of finding any, there being no place thereabouts that could afford it, the country being a deſart, which laſted ſeven days, all barren ground, and full of ſalt nitre; and for their comfort, as they deſcended a hill or precipice, after which they hoped for ſome relief, they met with the ſnows of the Cordillera, which was a ſight able to freeze the boldeſt undertaker, conſidering the dangers and ſufferings they were threatened with. Herrera, when he comes to this paſſage, ſays, ſpeaking of the bravery of the Spaniards, and their patience in ſuffering a great deal, which I ſhall not relate, that I may not be thought to praiſe my own countrymen with affectation; but I cannot omit ſome part of it: he ſays then, that to overcome ſuch difficulties, none could have attempted it, but ſuch as were uſed to endure hunger and thirſt, and to enter into a country without guides, through foreſts, and over great torrents, fighting at the ſame time with their enemies and the elements, and ſhewing invincible minds; marching both day and night, enduring cold and heat, loaded with their arms and proviſion; being all of them ready to put a hand to all things, even the moſt noble among them being the firſt, when a bridge or any thing was to be made, to turn pioneers and carpenters, and cut down trees, by which they were fit for the greateſt enterprizes.

The Adelantado ſeeing the new, and, in all appearance, the inſuperable difficulty that attended this journey, did not loſe courage, but made a bold exhortation to his men, telling them, that theſe were accidents that uſed to befal ſoldiers, without which no great honour could be gained, nor any of thoſe riches which they ſought after; that they ſhould put their truſt in God, who would not fail to aſſiſt them, ſince the planting of his faith depended upon their preſervation. They all anſwered chearfully, that they were ready to follow him to death; and becauſe example is the beſt rhetorick, he firſt began to enter into the Cordillera, or ſnowy mountains, with a detachment of horſe going before, that if he found any proviſions, he might ſend a ſhare to the army, which began to faint for want of it. But the more he advanced, he met with nothing but vaſt deſarts, with a wind ſo cold, that it ſtruck them through; and the paſſage grew ſtraiter and ſtraiter, till at laſt it pleaſed God, that from a high hill they diſcovered the valley of Copiapo, where the kingdom of Chile begins, where they were received very kindly by the Indians, out of the reſpect they bore to the Inga Paulo, and afforded them proviſions enough to ſend ſome to the army which followed. It is not poſſible to imagine how much they were preſſed both by cold and hunger, both Spaniards and Indians; here one would fall into the ſnow, and be buried before he was dead; another would lean againſt a rock, and remain frozen, juſt as if he had been alive. If any did but ſtop to take breath, immediately a blaſt of cold air left him fixed and immoveable, as if he had been of iron; and a Negroe, who had a led horſe in his hand, did but turn his head, and ſtop to ſee who called him, as ſomebody did, and both he and the horſe remained like two ſtatues; ſo that there was no remedy but to keep moving, for it was certain death to ſtop a little; but it could not be, but people ſo weary and ſo weak muſt ſtand ſtill ſometimes; and therefore they loſt a great many men, ſtrowed up and down the mountain.

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Garcilaſſo ſays, there died ten thouſand Indians and Negroes; of the fifteen thouſand which went with the Inga Paulo, only five thouſand eſcaped; for being all natives of Peru, and not having ever felt ſuch cold, for which they were totally unprovided with cloaths, they died apace; the Spaniards being better provided, endured leſs; and yet Garcilaſſo ſays, they loſt above a hundred and fifty men, and thirty horſes, which was a great loſs; others loſt their fingers and toes, without feeling it. Their greateſt ſufferings were in the night-time; for they had no wood to make fire, and the Indians eat the very dead bodies out of hunger. The Spaniards with all their hearts would have eat the dead horſes, but they could not ſtop to flea them. At laſt the proviſions, ſent them by the Adelantado, met them; ſo they paſſed the reſt of the way pretty well. When they came to the valley, the Indians made much of them, where we will leave them, to ſee how others, that came after the Adelantado, paſs the mountain.

CHAP. XVI. — *Others paſs the Cordillera.—What happened to the Adelantado in Copiapo:—His Return from Chile:—His Misfortune and Death.*

I DO not find clearly the time of the year in which this army paſſed the Cordillera: it is certain it could not be in the midſt of ſummer, nor in the heart of winter, becauſe not one of them would have eſcaped, ſince the firſt high wind would have overwhelmed them in the ſnow; therefore they paſſed it, either in the beginning, or the end of the winter; and moſt probably it was at the entrance of the winter; for if it had been at the going out of the winter, thoſe who followed would not have run ſo great a hazard.

The firſt of theſe was one Rodrigo Orgonnes, who was left by the Adelantado in Cuſco, to raiſe men and follow him, as he did. He loſt his nails, and would have loſt his fingers, if he had not taken his hand off the pole that held his tent up: others loſt their eyes, their ears, and many their lives; particularly all thoſe who were in one tent, which a ſtorm riſing carried up, and in the morning they were found all dead in the ſnow: they loſt alſo ſix and twenty horſes.

The next who paſſed after Rodrigo Orgonnes, was one Juan de Arrada, who brought the Adelantado the king's diſpatches, and his commiſſion for his government, whom we left in Copiapo; and it will not be amiſs to ſee what befel him there, before he received his commiſſion, and ſaw his friends. The firſt thing he did in this valley, was a work of charity and juſtice, in favour of the true lord of that land, and was not in poſſeſſion of the government, becauſe he was left a minor, under the guardianſhip of his uncle, who not only did not think of putting him in poſſeſſion, but contrived to take his life, which he would have effected, if he could have got him into his hands; but the ſubjects, more loyal than he, had hid him out of the way. The Adelantado being informed of the truth of this matter, and being entreated by the wronged Prince, reſtored him to the poſſeſſion of his government, putting the tyrant to death.

Before this happened, at their firſt arrival at Copiapo, the Inga Paulo took care to look out for ſome gold in that little province; and in one day having got together the value of above two hundred thouſand ducats, he preſented the Adelantado with it, in the name of his brother, the Inga Mango; which gave the Spaniards great cauſe of admiration, ſeeing that in one village, and in ſo little time, ſo much gold had been found, gathering from this, how prodigiouſly rich the country muſt be; and therefore Almagro was content to think all his pains well taken that he had been at to come into it.

The Inga Paulo finding his preſent ſo well received, being deſirous to make his court, got from the neighbouring parts three hundred thouſand ducats of gold more, which he preſented to the Adelantado; which gave him ſuch joy, to ſee that ſo rich a country was fallen to his lot, that he cauſed all his people to be aſſembled, and pulling out all the bonds and obligations made to him in Cuſco, for the gold and ſilver which he had there lent them, he cancelled them all, one by one, declaring to his debtors, that he freely forgave them their debts, and was ſorry they were not greater; and not only ſo, but opening his bags of gold, he began to uſe great liberalities; which ſo pleaſed them, that they forgot the dangers they had gone through, every one promiſing himſelf vaſt riches from ſuch a conqueſt. Franciſco Lopes de Gomara, who writes this hiſtory, ſays, that it was a liberality becoming a great prince, rather than a private ſoldier: but he adds, as a conſideration of the little ſtability of human affairs, and the proſperity of this world, that when he died, he had nobody to give a pall to cover his coffin.

But let us not afflict the reader ſo ſoon with the memory of that lamentable tragedy; let us rather follow this great captain in his good fortune. As he went further into the country, he was reſpected and treated as if he had been the Inga himſelf, in all the places he came to; but when he came to a nation called the Promocaes, which was the limits, beyond which the kings of Peru could never extend their empire, he found the ſame reſiſtance as they had done. The Adelantado perceiving this, demanded ſuccour from the Inga Paulo, who gave it him, by calling in the Inga's garriſons of the neighbouring frontier; and ſo the war began.

Here the Spaniards met with their match, and began to experience that the conqueſt of this part of America would not be compaſſed by their bare appearing with their horſes, dogs, and guns; or that a kingdom might be got by taking a king priſoner, and ſeparating his army to their purpoſes, and ſo remain abſolute maſters of the field; for here they met with a nation, who, though they admired their horſes, and were ſurprized to ſee them, yet the greatneſs of their courage overcame that ſurprize; ſo they met and engaged them with great valour, and many were killed on both ſides. The Spaniſh blood, which uſed to be ſo little ſpilt, was here ſhed in abundance; and from that time to this, the ſlaughter of them has not ceaſed, ſo as to make either ſide ſafe.

However, the valour of the Spaniards, and the advantages they had over them by horſes and guns, was ſuch, as they might well depend upon, which made them conceive the conqueſt of Chile to be a work of about two years at moſt; as it is probable it would have been, if the diviſions between Almagro and Pizarro, and his brothers, had not cut the thread of that enterpriſe, as it did that of their own lives; for they periſhed by one another's hands, upon points of conteſt about juriſdiction.

About this time the Adelantado being engaged with the Indians in a bloody war, Rodrigo Orgonnes arrived with his Spaniards, and ſo did Juan de Arrado, with the King's royal patents, and a commiſſion for the government of a hundred leagues of the country; which was juſt as if a deluge of water had been poured upon the fire already lighted of the war with the Promocaes, Cauquenes, and Pencos, who were the nations that had withſtood this invaſion. As for the Indians, they pretended to no more than to defend their country, and their liberty, from foreign invaders; and the Spaniards found themſelves called away by more earneſt motives of intereſt, and ſo turned another way. Not but that there were different opinions about what was to be done; ſome thought that it was better to ſettle where they were, the heavens and earth being both the beſt that they had yet diſcovered, and its riches ſuch as they were witneſſes of; others

others were of opinion to be content with what they had diſcovered, without expoſing themſelves to new dangers, and the accidents of war. But thoſe who brought the King's commiſſion, inſiſted extremely, that the Adelantado ſhould go to enjoy the effect of the King's favour to him; and, above all, that which moved Almagro moſt, was the jealouſy of ſeeing the Pizarros maſters of Peru: to which might be added, that if he did not take poſſeſſion of Cuſco, by virtue of the King's patent, he might be in danger of remaining, at laſt, without any title to any thing he had. In this confuſion of motives, the Adelantado ſtuck to the worſt, as it happened, ſince he loſt his life: he had, it ſeems, arrived to the top of fortune's wheel; and it is the ſame thing with her to ſtand ſtill, and to begin to go down; which he did, till he tumbled quite to the ground, and had his head ſeparated from his ſhoulders.

The world ſeldom performs its promiſes, otherwiſe who could have told this great and generous man, that he ſhould fall by thoſe hands to which he had lent his? The Pizarros would not have been at that height, if the frankneſs and friendſhip of Almagro had not aſſiſted them from the beginning with his fortune and good counſel; but nothing of all this was ſufficient to ſave him from death by their procurement. The differences between them grew to that height, that they engaged in a battle againſt each other; in which the Pizarros were conquerors, and Hernando Pizarro, the chief of them, ordered Almagro to be beheaded, being no ways touched by their antient friendſhip, nor the ſubmiſſions and tears of Almagro himſelf, though a venerable old man, begging his compaſſion with a body full of honourable wounds; but as if he had been a ſtatue of marble or braſs, he ſhewed no ſigns of compaſſion. It is granted that Almagro did ill, to leave the conqueſt of Chile, ſo well begun, and where he might have ſettled himſelf and his friends to ſuch advantage, to go back to Cuſco, to govern there by force, in caſe the Pizarros ſhould oppoſe him; but they alſo were much to be blamed, in not coming to ſome agreement with their antient friend and companion; but they are inexcuſable in ſhewing ſo much cruelty, as to put him to death: accordingly all their own proſperity ſeemed to end with his, and to turn to a lamentable tragedy, in which they died by one another's hands, as may be ſeen more at large in the already cited authors. For me, it is my buſineſs to purſue the conqueſt and ſettlement of Chile, which is my theme.

BOOK V.

OF THE CONQUEST AND FOUNDATION OF THE KINGDOM OF CHILE.

CHAP. I. — *The Governor Pedro Valdivia enters Chile:—He conquers and ſettles that Kingdom, and is the firſt that enters as far as Mapocho.*

THE more I draw near to the relating the ſettlement made in Chile by its firſt founders and captains, who reduced that kingdom to the obedience of Their Catholic Majeſties, and to the knowledge of God, the more I miſs the papers and records, which

which being ſo far off, I cannot have the help of in deſcribing the particulars of the events which were very memorable at the firſt entrance of the Spaniards. I muſt therefore make uſe of ſuch paſſages as I ſhall find up and down in the general hiſtories of the Indies; and this will refreſh in me the memory of what I have ſeen or learned by others; and yet I muſt own the knowledge and information the reader will have from hence, will be but ſcanty and ſhort, ſuch as I ſhould have hardly attempted to publiſh without this apology; and deſiring my readers to accept of this collection for the preſent, till the complete hiſtory of Chile does come out, I having left men moſt eminent in their profeſſion employed in it when I left thoſe parts.

The Adelantado Almagro being returned in the year 1537 to Cuſco, Colonel Pedro Valdivia deſired from the Adelantado Franciſco Pizarro leave to purſue the conqueſt of Chile, ſince he had power and commiſſion from the King to grant it. He promiſed not to return till he ſhould have completed the ſubjection of it, and reduced it to the obedience of the crown and God Almighty. The Adelantado, who had it in his thoughts, becauſe of the fame of its great riches, to follow the conqueſt of Chile, conſidering this gentleman to be one of the braveſt captains that had come to the Indies, having born arms in Italy and Peru, and given a very good account of all that he had undertaken, choſe him for this enterprize in the year 1539, giving him a year's time to prepare all things, that he might ſet out, as he did, in the year 1540. I do not ſay any thing of the particulars of his journey, nor of the people he carried with him, becauſe I am not where I can have a diſtinct information; only that in which all agree, is, that he got together a good body of men, both Spaniards and Indians; for theſe laſt relating what riches the Ingas uſed to draw from people who owned his empire in thoſe parts, animated every body to this enterprize; and Valdivia ſeconding, with addreſs, theſe impreſſions, made a good army, with which he ſet out from Peru.

They had almoſt periſhed with cold, hunger, and other inconveniences; yet at laſt they arrived, and advanced at firſt with little difficulty; but as they went, engaging further in the country, ſtill they found more oppoſition: they firſt came to the valley of Copiapo, which ſignifies the ſeed of Torquoiſes; for there is a rock of them, of ſo great a quantity, that they are grown leſs valuable upon it, as Herrera ſays: it is a blue ſtone, which makes a very good ſhew. And ſince now we enter this kingdom with more advantage, and upon a ſteady foot of ſettlement, it will not be amiſs to deſcribe the valleys and places where the cities were firſt founded, and the other ſettlements, that we may not be obliged to look back with an uſeleſs repetition.

The valley of Copiapo is the firſt of the inhabited valleys of Chile, though the beſt part of the people are Indians, with a few Spaniards, out of which one is the Corregidor, who is named by the governor of Chile. The land is of itſelf very fruitful, and is made more ſo by a pleaſant river, which runs about twenty leagues in it before it empties itſelf into the ſea in a bay which makes its harbour. Here grow all ſorts of the natural fruits and grains of the country, and of Europe; the maize yields above three hundred for one, and the ears of it are almoſt half a yard long, as Herrera and other authors relate. Though I am not informed as to the particular of Valdivia's reception here by the Indians, yet I ſuppoſe it was without much contradiction; becauſe theſe people were already accuſtomed to the foreign yoke of the Ingas, and had already ſeen and received the Spaniards out of reſpect to the Inga Paulo, who accompanied Almagro, who gave them their lawful Cacique, or prince, as we have ſeen. They had the ſame facility in the valleys of Guaſco, which is about five and twenty or thirty leagues from Copiapo, and that of Coquimbo Limari, and as far as Quillota. Here the Indians took arms, and oppoſed the Caſtilians vigorouſly; engaging them almoſt daily, as people

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that came to conquer and ſubdue their country. The Governor Valdivia penetrated as far as the valley of Mapocho, though with the loſs of many of his men. He found this valley extremely well peopled, becauſe of its breadth, fertility, and pleaſantneſs, being thoroughly watered by the river of that name, which, after having run ſome leagues, ſinks under ground, does not loſe itſelf entirely, but appears more nobly, and comes out with a more powerful ſtream two or three leagues further, being much bettered in its waters, which, from muddy, are turned clear as chryſtal.

CHAP. II. — *The Foundation of the City of St. Jago in Mapocho.—The Deſcription of its Situation.*

TOWARDS the eaſt, the great Cordillera, or Snowy Mountain, is a wall to this valley of Mapocho, and is in winter all over white, but in ſummer by ſpots here and there: to the weſt it has the ragged rocks of Poüangue, Caren, and Lampa, whoſe foot we may ſay is ſhod with gold (for that which is found in its mines is ſo fine, that a great deal was got out of them). Neither is this valley uncovered on the ſides; for to the north and ſouth it is environed by other mountains, which, though they do not approach the Cordillera in height, yet are high enough to make a circle about this valley, which in ſeveral of its rocks produces gold: it is, in its diameter from the Cordillera to the hills of Poüangue and Caren, five or ſix good leagues, and from north to ſouth, which is from the river Colima to that of Maypo, ſeven or eight leagues more; ſo that its circumference is between 26 and 28 leagues, or more, if we go down as far as Franciſco del Monte, which is a place of moſt pleaſant ſhady woods, where all the timber is cut for the building of the houſes.

In this valley, two leagues from the great Cordillera, by the ſide of the river Mapocho, God has planted a mountain of a beautiful aſpect and proportion, which is like a watch-tower, upon which the whole plain is diſcovered at once with the variety of its culture in arable and meadow; and in other places woods of a ſort of oak upon the hills, which afford all the fuel neceſſary for the uſes of life. At the foot of this mountain, which may be two miles about, the Caſtilians found many habitations of the Indians, to the number of eighty thouſand, as authors report; which Pedro de Valdivia obſerving, and gueſſing from thence, that it was the beſt part of the whole valley, he reſolved to found here the city of St. Jago, which he began the 24th of February in the year 1641. It ſtands in 34 degrees of latitude, and longitude 77, diſtant from the meridian of Toledo 1980 leagues. The form and ground-plot of this city yields to few others, and is ſuperior to moſt of the old cities of Europe; for it is regular, like a cheſs-board, and in that ſhape, and that which we call the ſquares for the men, of black and white, are in the city called Iſles, with this difference, that ſome of them are triangular, ſome oval, ſome round; but the ſquare ones are all of the ſame make and bigneſs, and are perfectly ſquare: from whence it follows, that whereſoever a man ſtands at any corner he ſees four ſtreets, according to the four parts of the heavens. Theſe ſquares at firſt were but of four large houſes, which were diſtributed to the firſt founders; but now by time and ſucceſſion of inheritance, they have been divided into leſſer, and are every day more and more divided; ſo that in every ſquare there are many houſes.

Towards the north, the city is watered by a pleaſant river, till it ſwells ſometimes in winter, when it rains eight, nay twelve and fourteen days without ceaſing; for then it overflows, and does great miſchief in the city, carrying away whole houſes, of which the

the ruins may be yet ſeen in ſome places; for this reaſon, they have raiſed a ſtrong wall on that ſide; againſt which, the river loſing its ſtrength, is thrown on the other ſide, and the city thereby freed from this inundation.

From this river is drawn an arm on the eaſt ſide, which being ſubdivided into as many ſtreams as there are ſquares, enters into every one of them, and runs through all the tranſverſal ſtreets by a conduit or canal; and bridges are every where, as neceſſity requires, for the paſſage of carts: ſo that all the houſes have a ſtream of water, which cleanſes and carries with it all the filth of the city: and from this diſpoſition of water, it is eaſy to water or overflow all the ſtreets in the heat of ſummer, without the trouble of carts or other conveniences, and that without any charge. All theſe rivulets empty themſelves to the weſt, and are let into the grounds without the city, to water the gardens and vineyards that are there: which being done, it is let into other fields, ſowed with all ſorts of grain, and then returns to the great river. The inhabitants do not drink of this water, though pretty good; but it ſerves to water horſes and other animals; therefore they fetch water from the river for their own drinking, or draw it from wells, which yield very good, and very cool: thoſe who are yet nicer ſend to the ſprings and fountains, of which there are many in the neighbourhood, which yield moſt excellent ſweet water. The ſtreets of this city are all of the ſame bigneſs and proportion, broad enough for three coaches to go abreaſt eaſily: they are paved on each ſide near the houſes, and the middle is unpaved for the paſſage of carts. There is one ſtreet that is of an extraordinary breadth, and in it fifteen or ſixteen coaches may go abreaſt; this is to the ſouth, and runs eaſt and weſt the whole length of the city: this is called La Cannada; and though at firſt it did not extend beyond the city, yet now it does, and has many buildings and gardens; and there is the church of St. Lazarus: but there are ſeveral ſquares built further which incloſe in again, and ſo it is in a good ſituation.

This Cannada is the beſt ſituation of the whole place, where there is always an air ſtirring, ſo as the inhabitants in the greateſt heats of ſummer can ſit at their doors, and enjoy the cool; to which may be added the agreeable proſpect it affords, as well becauſe of the buſtle of carts and coaches, as of a grove of willows which is watered by a little rivulet from one end of the ſtreet to the other: it is beſides adorned with a famous convent of St. Francis, the church of which is all of a white free-ſtone, all ſquare ſtone finely cut, and a ſteeple of the ſame at one end of it, ſo high, that it is ſeen a great way off by thoſe who come from other parts. It is divided into three parts, and has its galleries; the uppermoſt is a pyramid: from it one may diſcover on all ſides lovely proſpects, which delight the eye extremely, and recreate the mind.

CHAP. III. — *Of the other Edifices and Churches of the City of St. Jago.*

THIS city has (beſide this ſtreet called the Cannada, which might afford many places, ſuch as are in great cities) another very large one, named of St. Saturnino; it has likewiſe the place of Sancta Anna, where has been lately built a church dedicated to that glorious ſaint. There is alſo a place called La Placera de la Compania de Jeſus, where the front of their church makes a figure, and is a retreat or tabernacle upon the day of the proceſſion of Corpus Chriſti. Moſt of the other religious houſes have their places before the great porticos or entrances of their churches: but above all, is the place called the Principal Place, where all the buſineſs of law and commerce is driven. The two ſides of the place that are eaſt and ſouth have buildings after the old way, though they

they have made very good new balconies to them, and large windows, to ſee the bull-feaſts and other public diverſions which are made there. The north ſide is all upon arches of brick; underneath which are the ſcriveners and public notaries, as alſo the ſecretariſhips of the royal Audiencia, and the town-houſe: and over-head are the royal lodgings, with balconies to the place, with the great halls for the meeting of the town-houſe officers; and in the middle are the audience-rooms of the royal chancery, with their galleries to the place: and, laſtly, the royal apartments, where the royal officers are lodged; and the rooms neceſſary for the treaſury and chamber of accounts, and lodgings for the officers.

The ſide that lies to the weſt has in it, firſt, the cathedral church, which is of three iſles, beſides its chapels, which it has on each ſide: it is all of a fine white ſtone; the chief iſle, or that of the middle, being upon arches and pillars of an airy and gallant architecture. The remainder of this ſide to the corner is taken up with the epiſcopal palace, which has a very fine garden, and noble apartments both high and low, with a gallery ſupported by pillars, which anſwer the Place; which, if it were equally built on the eaſt and ſouth ſides, would be one of the moſt beautiful and agreeable places that can be; for it is perfectly ſquare, and very large, with a due regard to the whole plot of the city. I doubt not but in time the two old-faſhioned ſides will be pulled down, and others built on pillars and arches proportionably to the other ſides.

The greateſt part of the buildings, (except the public ones, which are of a rough ſtone, but very hard, which the mountain of Santa Lucia affords, and is within the city, and ſome great gates and windows which are of mouldings of ſtone or brick,) that is to ſay, the ordinary buildings, are of earth and ſtraw well beaten together, which is ſo ſtrong, that I have ſeen great openings made in a wall, to make great gates after the modern way, and yet the wall, though a very high one, not feel it, though the houſe was none of the neweſt, but almoſt as ancient as the city; for the ſun bakes and hardens the earth and ſtraw ſo well together, that I have ſeen a piece of thoſe walls fall from a high place, and not break in pieces, though ſo big that a man could not carry it. At preſent, the houſes that are built are of a better form, higher, and lighter than at firſt, becauſe the firſt conquerors were more intent upon getting gold, and ſpending it in ſumptuous treats, and high living, with ſplendour and liberality, than in building palaces, as they might have done, by reaſon they had many hands, and ſtone hard by.

In matter of buildings, this city, as moſt others of the Indies, may brag, that it imitated Solomon, who began with building the temple and houſe of God before he built his own palace. So the Spaniards have done all over the Indies, in this new world, inheriting this cuſtom from their anceſtors of Old Spain; for I remember, that travelling in Caſtilla, I made this obſervation, that let the place or village be never ſo ſmall, yet it has a good church; and even where the houſes were poor, and like dove-coats, the churches were of free-ſtone, with a ſteeple of the ſame; which gave me matter of edification, conſidering the piety of the faithful on this occaſion.

Juſt ſo the Spaniards of the Indies began firſt to erect churches, with ſo much application, that they do not ſeem buildings made within theſe hundred years; but rather ſuch as one would think they had inherited from their anceſtors, or had been built by the Gentiles; and yet there is not a church in all the Indies, which they have not raiſed from its foundation. We have already ſpoke of the cathedral of St. Jago; and much more might have been ſaid of its ſtrength and beauty, and the ornament of its altars and ſacriſty. There are beſides ſeveral other fine churches. That of St. Domingo, though not of ſtone, is built upon arches of brick, with a great many fine chapels on

each ſide, particularly that of Nueſtra Sennora del Roſario, which is all painted and gilded, with handſome knots and feſtoons. The ſacriſty is full of ornaments of brocade of gold and ſilver, and embroidered ſilks of the ſame; a great deal of plate for the altar, and mouldings of the altar-piece, all gilded. But this is nothing to the cloiſter, which by this time is made an end of, and is of a fine architecture, two ſtories high; and the lower, where the proceſſion goes, is adorned with exquiſite paintings in the four corners, where are four altars all gilded, and light as a bright flame: the apartment at the entrance is alſo finely ſet off with pictures of ſaints of the order, of excellent hands.

The convent of St. Francis may be called a town for its largeneſs: it has two cloiſters for the proceſſions; the firſt is upon arches of brick; and the ſecond, which is the largeſt, very finely painted, with the ſtory of the life of the ſaint compared with paſſages of our Saviour Jeſus Chriſt's life; and over, are all the ſaints of the order; and at each corner four great pictures, with four altars, which ſerve for the processions and ceremonies of holidays.

The church is of free-ſtone, and all its altars gilded on the inſide; but above all, the ſeats of the choir are a piece of rare workmanſhip: it is all of cypreſs, by which means there is always an admirable ſmell. The firſt row of ſeats reaches, with its crowning or ornaments, to the very roof, all of excellent architecture, with its mouldings, baſes, corniſhes, and other proportions.

The church of our Lady of the Mercede, is alſo built upon brick arches. The great chapel is admirable for the thickneſs of its wall, and the beauty of ceiling, which is all of cypreſs wood, in the form of a duomo, or cupola. The great cloiſter is begun upon ſo fine a model, that to finiſh it ſo, will require the care and application of thoſe who have the government of that convent. The ſituation of this convent is the fineſt and nobleſt of any, except that of St. Francis: it has the advantage of receiving the river firſt, whereby water is ſo plentiful in the convent, that they have been able to make two mills to grind corn enough for the convent, and to give away.

The convent of St. Auguſtin is but newly begun; but its church, all of free-ſtone, will outdo all the others for beauty: it is of three iſles, and in the midſt of all the hurry and buſineſs of the town.

It is not many years that the ſacred order of the bleſſed Juan de Dios has been ſettled in this kingdom; and in a little time thoſe fathers have done a great deal; for, having taken upon them the care of the royal hoſpitals, they have reformed them, aſſiſting the ſick with all neatneſs, care, and diligence, and have added ſeveral large buildings. They are much helped in this by the devotion the people have for their founder, to whom they addreſs their prayers and vows in their wants and neceſſities, and not in vain, for they feel great relief by his interceſſion.

The college of the company of Jeſus has not been able to build the inſide of the houſe, becauſe from their firſt foundation the fathers have attended only the finiſhing of the church; which is now compaſſed, and is without diſpute the fineſt next to the cathedral. It is all of a white ſtone, the front of an excellent architecture, and over the corniſh a figure in relievo of a Jeſus. The great chapel has its cupola and lanthorn all adorned with feſtoons and knots of two ſorts of wood, white and red, which makes a beautiful ſhew.

The covering or roof is all of cypreſs, inlaid with all ſorts of flower-work, and divided into five parts; the middlemoſt is a compoſure of all ſorts of figures, which ſeem a labyrinth to thoſe who ſee it from the ground, and, with a noble corniſh that runs round, gives a delightful proſpect.

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The architecture of the altar, and the tabernacle for keeping the holy ſacrament, are valued at a prodigious ſum. The altar riſes to the top of the church; and becauſe, according to art, it ought to have reached from wall to wall, which it does not, the empty places are filled up with two reliquaries on each ſide, which join to the altar: this being all gilded, ſeems, when one firſt comes in, to be one plate of gold.

CHAP. IV. — *Of the Civil Government, both Eccleſiaſtical and Secular, of the City of St. Jago; and of the Nature and Properties of its Inhabitants.*

GOVERNMENT is the ſoul of the body politic; and therefore, at the ſame time that the city of St. Jago was founded, the corporation was ſettled to adminiſter juſtice, without which no government can ſtand. The corporation conſiſts of two ordinary Alcaldes, an Alferes royal, an Alguazil mayor, a general Depoſitarius, ſix counſellors, or aldermen, choſen every year, half out of the gentlemen called Encomenderos, and half out of the inhabitants of the place, who have bought that privilege for themſelves and their deſcendants. Of the two Alcaldes, he that is of the Encomenderos has the precedence and firſt vote, and the inhabitant the other: they divide the year between them by ſix months. There is a preſident to the aſſembly, who is always corregidor, and lieutenant to the captain-general; and it is a place of great honour: and though it be of more charge than profit, by reaſon of the expence belonging to it being unavoidable, yet it never fails of pretenders, becauſe of its authority, and the reſpect paid to the office. There are choſen yearly, with the two Alcades, two others of the holy fraternity, or Hermandad, whoſe juriſdiction is without the bounds of the city, as is practiſed in other parts. About thirty years ago there was founded a royal chancery in this city, which conſiſts of a preſident, four Oydores, or counſellors, and two fiſcals; one who is the ordinary, and another, who has been added within theſe four years, and has the ſame honours, who has the protection of the Indians, and the matters belonging to the holy Cruzada. After theſe is the Alguazil mayor de Corte, who has alſo the magiſtrate's habit, and a chair of ſtate: then are the officers called the chancellor, ſecretaries, referendaries, and others, as in ſuch courts. There is no appeal from the ſentence of review given in this court, but to the royal council of the Indies; and then there is a certain ſum, below which there is no appeal neither. It cannot be denied but the majeſty of this tribunal has very much adorned the city; though there want not thoſe who lament the hindrance it has given to its riches and increaſe, which would have been more conſiderable, if the inhabitants had continued in their firſt ſimplicity, cloathing themſelves with the manufactures of the country, and avoiding all thoſe pompous liveries which are now in uſe; for thoſe who before might walk in the public place in a plain dreſs of the country, and be honoured and reſpected, muſt now appear in ſilk, or Spaniſh cloth, which yet is dearer than ſilk, for a yard of it coſts ſometimes twenty pieces of eight. Any gentleman of eſtate cannot now appear decently in public without many ſervants in rich liveries; and within a few years they have brought up a vanity of rich paraſols, umbrellas, which at firſt were only uſed by the people of the greateſt quality; and now nobody is without them, but thoſe who cannot compaſs them: and though it is a thing of great gravity, and very uſeful to preſerve health, yet it increaſes thoſe forced expences uſed in great cities; for this, and ſome other reaſons, ſome were of opinion, that it would have been better for the city and kingdom, that they had continued to govern themſelves without this court of a royal Audiencia, as they did formerly:

merly: but, to ſay truth, they are in the wrong; for, firſt, there are many cities in the Indies, where, without a court of this nature, I have ſeen vanity thrive in liveries and ſuperfluous expences as much as any where. Secondly, becauſe, abſtracting from paſſion and intereſt, which commonly do miſlead men in the adminiſtration of juſtice, it cannot be denied but that the ſovereign authority of this tribunal is of great weight to maintain the quiet of the kingdom, by keeping an even hand in the adminiſtration of juſtice, and not ſuffering that the tyranny ſome affect, either by reaſon of their preferments or riches, ſhould ſtifle right reaſon, or oppreſs innocency, which has not learned to court and flatter.

Thus a royal Audiencia is a bridle to vice, a reward to virtue, a protection to the poor, and a maintenance of right and reaſon; and this was the intention of our catholic monarch: for this reaſon did he erect this court, which is the more neceſſary, becauſe it is at that diſtance from the royal preſence, and ſo hard that the cries of the poor ſhould reach his ears; for if ſometimes they do arrive to his court, it is ſo faintly, that they can ſcarce be heard: for this reaſon, thoſe who have the chuſing and ſending the king's officers into ſuch remote parts, ought to be the more careful to provide men of chriſtian principles, and well intentioned, as indeed they have been, and are ſtill in that kingdom; and it is no more than is neceſſary, for a good example to thoſe new chriſtians the Indians.

This royal Audiencia is the cauſe likewiſe, that much gentry comes from Europe to the Indies, and ſo help to people them, and to continue the good intercourſe between Spain and that country, which is good for both. It cannot likewiſe be denied (though that be but as an acceſſory), that the preſence and aſſiſtance of this royal tribunal at all public feaſts and exerciſes, is of great countenance to them, and particularly to the literary acts and commencements, whereby learning is encouraged; and thoſe who employ themſelves in that honourable ſtudy have a reward before their eyes, hoping to attain to be advocates, referendaries, fiſcals, and counſellors: for in the Weſt-Indies thoſe places are all very honourable, and particularly in Chile, where the ſalaries are larger than in other parts, and yet proviſions are cheaper; ſo that it is eaſy to lay up a good part of one's revenue. Beſides theſe tribunals, there are others, as that of the chamber of accounts, or treaſury, for the management and adminiſtration of the King's revenue; theſe officers do likewiſe viſit the ſhips that come in and out at the port of Valpariſo; their offices are very honourable, and of great profit, and they are in the King's gift, as thoſe of the royal Audiencia are.

The affairs of juſtice, and things belonging to good government, are under the Audiencia; but thoſe of war and preferments belong to the governor, of whom we ſhall ſpeak in a proper place.

The biſhop is abſolute lord of all the church-government; and though the biſhopric of St. Jago is none of the richeſt of the Indies, becauſe all the product of the earth is ſo cheap, and by conſequence the tithes do not riſe high, yet this very abundance is part of the riches of the biſhopric; for by this means the biſhop's family and expences are the eaſier ſupplied, and he may keep more attendance, and yet lay up a good part of his revenue; whereas other biſhoprics, though richer, have enough to do to keep up the decency of their dignity. There is a numerous clergy, who make a great *cortege* to the biſhop upon certain public days; and when he is received the firſt time, and takes poſſeſſion, the ceremony is very great; for part of the royal Audiencia, the chapters, all the militia, horſe and foot, with the people, go out to meet him; ſo that it is a day of great pomp.

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The chapter of the cathedral is a venerable body of men, in which the King alone provides the vacancies by virtue of his royal patronage, and the conceſſion of the popes; ſo that there is not, as in Spain, the biſhop or the pope's month; but in the Indies all dignities of cathedrals, even to the very pariſh prieſts, are all at the King's nomination, but with ſome differences; for the dignities are beſtowed in Spain itſelf, by the advice of the council of the Indies; but the cures or livings of pariſh prieſts, the King does beſtow them by his governor or preſident, who expoſes a public edict, that all oppoſers for the vacancy of ſuch a benefice may come and oppoſe the examination; and of theſe, the biſhop preſents three to the governor general, to chuſe in the King's name.

The holy tribunal of the inquiſition, which is in Lima, ſerves for all the whole South-America; ſo that in Chile there is only a commiſſary, with his officers and familiars, who accompany him in all public acts, and form a tribunal with great authority. There is likewiſe an officer of the Cruzada, called a commiſſary, which is likewiſe a poſt of great authority; and the day that the bull is publiſhed, all the orders of the religious are bound to be at the proceſſion.

Let us conclude this chapter by ſaying ſomething of the natives who are born and bred in this city: they are generally ingenious, and of good parts; and thoſe whoſe inclination is to learning, ſucceed very well; but they are naturally more inclined to war, very few of them taking to other employments, either of trade or buſineſs; and they who, from their infancy, or by a ſtrong inclination, do not take to learning, ſeldom ſucceed, and eaſily leave it, if put upon it, to follow the ſound of a drum or a trumpet, and never are quiet till they get to be enrolled as ſoldiers, being much better pleaſed with the liberty of a ſoldier's life, than with the diſcipline of the ſchools.

They are much addicted to horſemanſhip: and I have often ſeen, that to ſtrengthen a child that can hardly go, the beſt way is to ſet him on horſeback; this makes them prove dexterous horſemen, and bold. And it is a common opinion and a known experience, that for horſe, one of the country is better than four from abroad: this has been ſufficiently proved in the courſe of ſo long a war as that which has buſied that kingdom.

They are naturally liberal, good-natured, and friendly, particularly if they are treated honourably, with due regard: they are pretty ſtubborn and wilful; to be led only by fair means, and then they are docile and tractable; but if force is uſed, they do worſe and worſe. This we the fathers of the ſociety do often experience in our colleges; ſo we are obliged to lead them by ſweetneſs and emulation, rather than by rigour and harſhneſs.

CHAP. V. — *Of the Riches, Militia, Studies, and Increaſe of the City of St. Jago.*

THIS city, to which the King has given the title of Moſt Noble and Loyal, is the capital city of Chile, and one of the beſt in the Indies, next to thoſe two royal ones of Lima and Mexico, which do exceed it in ſumptuous edifices, in people and trade, becauſe they are more antient and nearer Spain, and for a greater paſſage for the people that come from Europe, and free from the tumults of war, which is a canker that eats deepeſt into great cities and kingdoms; and it is no ſmall proof of their force, to be able to maintain ſo long a war.

This city was founded one hundred and four years ago; and it had all that while ſuſtained the heavy load of a long and ſtubborn war, which the native Indians have made upon the Spaniards without any intermiſſion; in which its inhabitants have either always

always been in arms, or ſending many horſes and proviſion to the camp; a calamity, which, far from letting it grow to what it is, ought to have kept it down from the beginning: nor is it of a ſmall conſideration, for the growth of other cities in the Indies, to reflect, that they being in the way, and, as it were, upon the paſſage of other places, many new comers have ſettled there, who perhaps at firſt were bound for other countries, or at leaſt were indifferent where they ſtayed, and took up with them. It is otherwiſe with the city of St. Jago, becauſe the kingdom of Chile being ſo remote, and the laſt of all the Spaniſh dominions, it is the *non plus ultra* of the world: ſo that nobody goes thither by chance, but on purpoſe, and upon ſome deſign or particular intereſt; for which reaſon the number of ſtrangers is little.

But the city is ſo good and convenient to paſs away life with eaſe, that notwithſtanding theſe diſadvantages, it is ſo encreaſed, that it aſtoniſhes all who ſee it, few cities of the Indies outdoing it in finery, particularly as to the women (it were to be wiſhed it were not to that exceſs); for all things coming from Europe are there prodigiouſly dear; and this cauſes many families to run behind hand. Who ſhould ſee the place of St. Jago, and that of Madrid, could ſee no difference as to this point; nay, as to the women, the finery exceeds that of Madrid; for the Spaniſh women, ſcorning to go to ſervice, are all ladies, and love to appear as ſuch, as much as they can, and the emulation between them about fine clothes, jewels, and other ornaments for themſelves and their ſervants, is ſuch, that let their huſbands be never ſo rich they want all they have, particularly if they are of the nobility, to ſatisfy the pride of the women.

As to the militia of the city, the firſt part of it is the company of inhabitants, Encomenderos, and reformed captains, who have no other commander but the governor himſelf, or his deputy; after that, there are two or three troops of horſe, and three or four companies of foot, all Spaniards. Theſe often muſter on holidays, and are exerciſed in the uſe of their arms; and ſometimes there are general muſters before the Oydores and royal officers, where their arms are examined; who alſo note them down, to know what ſtrength they can raiſe upon occaſion, puniſhing ſuch as do not keep their arms and horſes fit for ſervice. By this diligence they are very ready at their arms, and the exerciſing of them proves an entertainment for them and the whole city: for very often, in the public proceſſions, one or two of theſe companies uſe to come out, and make a ſalvo for them; and in the holy week there always attend a troop of horſe, and a company of foot, who guard the ſtreet, where the proceſſions of the whippers go to keep the peace, becauſe of the Indians, who uſe to take that time to make ſome riſings, the Spaniards being wholly taken up with their devotions.

The days in which this militia makes the beſt ſhow, are, when the biſhops come to be received, becauſe they make a lane from the entrance of the city to the great place of it, where they form their battalion; and the concourſe of the people uſes to be ſo great, that though the place is very large, there is ſcarce room for them.

And ſince we are upon that ſubject, we cannot omit to obſerve that which is worthy of admiration, and that is, to ſee how it is increaſed in the number of Spaniards within theſe forty years. It is probable, the ſame has happened to the other cities of the Indies; but this has had a continual drain, by ſupplying ſoldiers for the war with the Indians, where many periſh, and few return. I remember that I have heard ſay, that one of our fathers, newly come from Europe, and coming to our college, where he ſaw but few people in the ſtreet, cried out,

Apparent rari nantes in gurgite vaſto.

By

By which he meant to ſignify, the diſproportion of the inhabitants to the bigneſs of the city; but now that very ſtreet is ſo full of people, that all hours of the day, and ſome of the night, it is extremely frequented; for there have been built many houſes for handicraftsmen and ſhopkeepers on both ſides of it, becauſe trade is conſiderably increaſed.

I can myſelf affirm, that I obſerved as great an alteration in a much leſs time, as well in people as in building; for having been abſent but eight years, I confeſs, that at my return I ſcarcely knew the place again; for I found ſeveral ground-ſpots where there was not a houſe built upon, with very good buildings; and thoſe which I had left built were altered to the better, with more and higher apartments; and the courts, which were very large, were conſiderably ſtraightened by other buildings; and yet the plot of the city was larger too; ſo that being at firſt built at the foot of the mountain we have ſpoken of, to the weſt of it, I found it extended as much to the eaſt, and the ſame proportionably to the ſouth and north, and it increaſes daily towards the river, and the Cannada.

There was, when I left the place, about a dozen ſhops of good retailers, and at my return there were above fifty; and the ſame proportionably as to the ſhops of ſhoemakers, taylors, carpenters, ſmiths, goldſmiths, and other handicraftſmen, whom I found alſo more curious and exact in their profeſſions; and emulation has produced very good pieces of workmanſhip in gold and ſilver, and carvings in wood, gildings, paintings, which have adorned the churches, with thoſe which have been brought from Europe, and the particular houſes; ſo that in ſome houſes alone, there are more things of that kind now, than there were in all the city formerly. Some complain, that there are not now ſuch rich and powerful men as there were at firſt; and that is true: but it does not follow, that the generality is the worſe for that, but rather otherwiſe; for the lands and houſes which belong now to ten families were antiently in one; it being certain that ſeveral of the heirs of that man have attained to as great riches as he himſelf had; or at leaſt it is apparent, that the ſtock of all thoſe who have ſhared the inheritance far exceeds what was left them: ſo that ſuppoſing that ſome were formerly richer, yet the riches are more in the land; which is alſo clear to any that ſhall conſider the houſes, poſſeſſions, and other improvements made ſince that time; for now there is ſcarcely room for the people, whereas before there was not half people for the room that was for them; which is alſo viſible in the country round about, where farms that could hardly find purchaſers, and were little worth, are now ſo riſen in their value, that the ſmalleſt coſt great ſums; and this rage of purchaſing is ſuch, that moſt of the cauſes in the royal Audiencia are about titles; for the antients, who took poſſeſſion of the land, thought, that if they had a little footing in a valley, it was all theirs; but thoſe who have come ſince, have purchaſed by virtue of new titles, and taken new poſſeſſion; which makes ſo many law-ſuits.

There is not formed a regular univerſity in this city, becauſe that of Lima ſerved for all the neighbouring kingdoms and provinces to take their degrees: but when in time the going to Lima was found ſo chargeable, and the journey, which is of three or four hundred leagues, ſo troubleſome, there were bulls obtained of the pope, for the orders of St. Dominic and the Jeſuits, to have the privilege of conferring the degrees of batchelor, licentiate of arts, as alſo doctors in divinity, in the kingdoms of Chile, Granada, Ruito, Chuquizago, Tucuman, and Paraguay.

The effect has ſhewed how neceſſary this favour, and how important this privilege has been; for this incitement to honour has cauſed a general application to learning; for the prieſts and curates are already great proficients in ſtudy, and ſo more capable

of taking upon them the cure of ſouls; and thoſe who betake themſelves to a religious life, are better qualified to ſerve their orders, and be an honour to them, as many of them are; and it does not a little contribute to the value of them, to ſee the great ſolemnity uſed at the reception of the ſeveral graduates. And in this, as well as the reſt, I think our city of St. Jago is not inferior to any: for, firſt, all the acts are held with great concourſe of all the learned, and very often the biſhop honours them with his preſence, and ſo do the preſident of the Audiencia, and the chief of the town-government, to whom are dedicated the ſubjects of the extempore readings, according to the conſtitution of the univerſity, which are given out with great fidelity, dividing the ſubject into three parts, for the graduate to diſpute upon in preſence of a great concourſe of people; and the ſeverity is indiſpenſable in this and all other examinations, for the different degrees which are given by the biſhop, by virtue of an approbation firſt given him by the father rector and the profeſſors, as the bull directs; according to which there is no obligation of giving any treat; but yet that the doctors may aſſiſt with more pleaſure and diligence, there has been introduced a cuſtom of giving ſome moderate ones, beſides gloves, which were allowed inſtead of it; but ſome out of oſtentation give both treat and gloves. Beſides this, there has been introduced a cuſtom of inviting the horſe of the city to honour the proceſſion, which make the ſolemnity the more conſpicuous; and they very willingly accept of the invitation, for they are very ready to mount on horſeback to honour any, much more thoſe who diſtinguiſh themſelves by the exerciſes of virtue and learning.

CHAP. VI. — *Of the Worſhip of God, and the Church Ceremonies in the City of St. Jago.*

IF we were to make a judgment of this city by the worſhip of God that is performed in it, and the appearance of the clergy, we ſhould judge it to be much bigger than it is; for the ſtate and expence with which the holidays are kept, in the charge of muſick, perfumes, wax, and other ornaments, are very great: let us give ſome particular inſtances, and begin with the cathedral. I cannot but commend the piety of thoſe eminent perſons, the biſhop, preſident, and counſellors of the royal Audiencia, who taking each of them a day during the octave of the holy ſacrament are at the whole expence of that day, and that is very conſiderable; for all the wax and perfumes are very dear, as coming from Europe; and the holy emulation that is between them, increaſes the ſplendour of the day; ſo that during that octave, the church is ſo perfumed, that its fragrancy is ſmelt ſome diſtance from it. The proceſſion of the firſt and eighth day are upon the account of the chapter, as the hanging of the ſtreets, and erecting of altars for repoſitories, are at the charge of the inhabitants where the proceſſion paſſes: this proceſſion is attended by all the convents, and all the companies of trades, with their banners and flags, ſo that it reaches a great way. After this of the cathedral come every day new ones of all the convents, ſo that they laſt a month, every one endeavouring to have theirs the beſt; by which means there are great variety of ornamental inventions and machines. The Indians of the neighbourhood, that live in the Chagras, that is, little cottages, within ſome miles of the city, attend likewiſe with their banners: and they chuſe for this purpoſe a leader who makes the expence, and treats thoſe of his company: their numbers are ſo great, and the noiſe they make ſo loud, with their flutes, and their hollowing and ſinging,

that they are placed in the front, or elſe there would be no hearing the church muſic, nor any means of underſtanding one another about the government of the proceſſion. The other feaſts and holidays in the year are proportionably ſolemnized with the ſame decency by all the orders of friars, who all of them have ſome devout perſons who help to bear the charge. But the nuns exceed all the reſt in ornaments; and theſe nunneries are ſo populous, that in that of St. Auſtin alone there are above five hundred perſons, whereof three hundred are veiled nuns, the reſt are lay-ſiſters; and becauſe the nunnery being full, there can be no more received, but with great difficulty, the other nunnery of Sancta Clara receives ſo many every day, that in a little time it will equal the other in number, as it does already in the pomp and ornament of its church-ſervice; that which theſe angels of Heaven, (for ſo we may juſtly call thoſe who with ſo much piety and anxiety do ſerve God continually, and are as a wall of defence to the city,) that which they do moſt ſhine in, can hardly be expreſſed as to the neatneſs, curioſity, and richneſs of their altars, and the church-ornaments. What ſhall I ſay of the ſmells, artificial flowers, fruits, chocolates, paſtillos, and perfuming pots, which I have ſeen ſometimes of ſo great a ſize, that they ſtruck me with admiration, conſidering the matter they are made of, which is of a refined ſugar, as white as ſnow, ſometimes in form of a caſtle, ſometimes of a candleſtick, or a pyramid moſt exquiſitely wrought.

They are not content with this; for I have ſometimes ſeen the whole grate of the choir, and the joiners' work, and beams of the church, all covered with preſerved citron, in form of ſuns or angels of *mezzo relievo*, and a thouſand other inventions, which I ſhould never have done, if I ſhould report them all. I muſt only ſay, that the generoſity of thoſe ladies is ſuch, that though this coſts very much, yet I have often ſeen them, at the end of a maſs, diſtribute all thoſe things to thoſe who happen to be in the church, without keeping it for themſelves: they do not only do this within the church, but the altars which are ſet up in their cloiſters, and ſtreets near them; for the proceſſions are adorned, after the ſame manner, with fruits and flowers of the ſame materials, ſo well imitated, that they appear new-gathered.

The monaſteries of men are not ſo well filled as thoſe of the nuns, though ſome have a hundred, others ſixty or ſeventy friars. The ſecular clergy is alſo very numerous, very virtuous, and learned. Since I came away, there has been founded another nunnery of about thirty nuns, who will need no portion, being provided for by a gentleman who left all his eſtate to that foundation; it was Captain Alonſo del Campo Lantadilla, Alguazil mayor of that city, which will be of great ſervice to help the providing for poor maids, who, perhaps, elſe would not find it eaſy any other way.

CHAP. VII. — *In which is treated of the Proceſſions of the Holy Week in the City of St. Jago.*

LET us conclude this matter of religion and pious exerciſes with ſaying ſomething of the moſt remarkable practice of it in the holy week, by the ſtatelineſs of the proceſſions at that time; which is ſuch, that all ſtrangers confeſs, that if they had not ſeen it, they ſhould hardly have believed it. Theſe proceſſions begin on the Tueſday in the holy week, to which the company of the Morenos, which is founded in our college, give a beginning, (of which we ſhall ſpeak more when we treat of its employments, as alſo of the brotherhood or confrary of the Indians, on the morning of Eaſter-day.) The proceſſion that follows next, is that which comes out of the convent of St. Auſtin,

in which is founded the confrary of the Mulattos: they go all covered with black frocks, and have many paſſages of the paſſion ſung very devoutly, with the beſt muſic of the place, and many lighted torches. The Wedneſday the famous proceſſion of the confrary of the Nazarenos ſets out, which is all of natural Spaniards, of ſeveral arts and profeſſions, and is founded in the royal convent of Nueſtra Sennora de la Mercede; and it is one of the richeſt and moſt adorned proceſſions. This proceſſion is divided into three troops: the firſt of which carries La Veronica to the cathedral, where it ſtays to meet the ſecond, in which comes the Redeemer with his croſs, ſo heavy, that he is forced to kneel often.

When this ſecond, which is the largeſt, comes to the great place, that which ſtaid at the cathedral goes to meet them; and at a certain diſtance, in ſight of a vaſt multitude of people, the Veronica comes, and kneeling down to the image of Chriſt, which is a very large one, ſeemingly wipes his face, and then ſhews the people the repreſentation of it remaining in the handkerchief; and then, as they begin to march, there appears the third proceſſion, in which comes St. John, ſhewing the Virgin Mary that dolorous ſpectacle: ſo that by all theſe there is formed a mighty proceſſion, with many lighted torches, and all the brothers are clothed in their red frocks, marching with great ſilence and devotion. There is another repreſentation of great piety, which is performed in the convent of St. Francis, and in this convent; which is the parting of Chriſt and his mother, which uſes to cauſe great paſſion and many tears, becauſe of the naturalneſs with which it is acted.

On the Thurſday there are very curious ſepulchres erected, and many alms given to the poor; and though in the foregoing proceſſions, and on the Fridays in Lent, there are to be ſeen ſome people whipping themſelves, with divers ſorts of penances, which every one performs according to his own devotion, yet the proceſſions, which by excellency are called the bloody proceſſions, are performed this night. One of them ſets out from the chapel of the true croſs, which is in the convent and chapel of Nueſtra Sennora de la Mercede, and is only of the inhabitants and gentlemen, who go all covered over with black frocks; and he who carries the croſs is obliged (beſides the collation which he provides for the preacher, and the muſic, and which uſes to be very magnificent) to provide alſo men to attend the proceſſion, and relieve the whippers, who often draw ſo much blood, that they faint away; and others take care to cut off of the diſciplines ſome of the ſpurs of them, for they uſe to have ſo many on, that they almoſt kill themſelves, nay, I have ſeen ſome of ſo indiſcreet a zeal, that they uſed certain buttons with points ſo ſharp, that if they were let alone, it is a diſpute whether they would not die before the end of the proceſſion. Before this go alſo two others, both of them bloody proceſſions; one of the Indians, and it is that has moſt whippers; the other comes from St. Domingo, and is of the Morenos: they both have muſic; and the communities of all the convents go to meet them when they come near their churches with torches in their hands. They ſpend a great deal of time in their proceſſion, and are accompanied by an infinite number of people.

On the holy Friday there are two proceſſions more that go out of St. Domingo and St. Franciſco, both of natural Spaniards. That of Sancto Domingo is called the proceſſion of pity, and has been begun but lately; but it has made ſuch progreſs, that it equals the moſt ancient: they carry all the marks of the paſſion by ſo many dreſſed up like angels very richly, and each of them is attended by two brothers of the proceſſion with lights, and their coats of yellow. The other proceſſion, which comes from St. Franciſco, is the antienteſt, and has always been the beſt: it is mightily commended for the great ſilence and devotion with which it is performed; for there is not a word

ſpoke

ſpoke in it from its going out to its returning. Before it goes, there is performed the deſcent of the croſs before a great concourſe of people. This has always been an action of great piety, and very moving. The enſigns, or marks of the paſſion, go out in order; and when they come, there is another repreſentation very tenderly made in the Cannada: there is a great croſs ſet up; and when the image of the virgin comes up to it, it lifts up its eyes, as one who miſſes the ſovereign good that hung on it, and, drawing out a white handkerchief, applies it to the eyes, as crying, and then opening the arms, embraces the croſs, and kneeling kiſſes the foot of it once or twice: all this it does ſo dexterouſly, and becomingly, that one would ſwear it were a living creature: and this action being accompanied with the muſic of the day, proportioned to the grief of the myſtery, it is incredible what effects it has upon the people, who crowd one upon another to ſee it.

On the Saturday, and on Eaſter-day in the morning, there are other proceſſions. The firſt comes out of St. Domingo, and is of the gentlemen and citizens, who in this are clothed in white, of moſt rich cloth of ſilver or ſilk, finely garniſhed with jewels and chains of gold. The ceremony of the reſurrection is celebrated by night in the cloiſter; and, for that end, there is ſuch an illumination, that it ſeems day. The proceſſion goes out very noble and gay, and in it are many lights, muſic, and dances, the ſtreets being all adorned with triumphal arches, and hung with tapeſtries; and while this proceſſion is in the cathedral, celebrating the maſs, and communicating the hoſt to the brothers, there comes another to the great place to meet it, another from the college of the Jeſuits, which is a confrary of Indians, the moſt antient of the city, conſiſting of a company of Indians of both ſexes, who, with torches in their hands, accompany the child Jeſus dreſſed up after the Indian faſhion, (which cauſes great concern and devotion): they have alſo many colours, enſigns, and other ornaments, very rich and gay. At the ſame time, two other proceſſions of Indians likewiſe ſet out from the convents of St. Francis and Nueſtra Sennora de le Mercede, and another of Morenos from St. Domingo, all with a great apparatus of drums, trumpets, colours, hautboys, dances, which make that morning appear very gay and merry; and that it may be ſo to our Saviour reſuſcitated, they all communicate, and give a happy Eaſter to the Divine Majeſty and all heaven, to which the earth can never pay a greater tribute than by the converſion of ſinners, particularly of theſe new Chriſtians, whoſe anceſtors adored but the other day their idols; and now they acknowledge, and kneel before the true God, ſit with him at his table, as grandees of his court; they, who not long before were ſlaves of the devil.

CHAP. VIII.—*Of ſome other Holidays of the City of St. Jago.*

ONE of the things in which the greatneſs of a city ſhews itſelf moſt is, in its feaſts, holidays, and public entertainments: we will touch a little on thoſe of St. Jago; and, beſides the ſecular ones of bull-feaſts, running at the ring, Juego de Cannas, tournaments, illuminations, and other diverſions in which this city ſhines, it is wonderful how well there are celebrated the public rejoicings for the birth or marriage of their prince, in univerſal canonizations of ſaints, and in all other ſolemnities, but particularly thoſe ordered by His Majeſty, as that was about thirty years ago, when His Majeſty, out of his great piety, ordered, in honour of the queen of angels, that the myſtery of her holy immaculate conception ſhould be celebrated in all his kingdoms, as well by the ſeculars, as by the churchmen; and the firſt indeed need no incitement in this matter, every one being

being ready to ſhew their acknowledgments to this ſovereign queen of heaven, who has favoured more particularly the kingdom of Chile with her protection from the beginning.

Let us now ſay what the city of St. Jago did upon this occaſion, that the affection with which the inhabitants correſpond to what they owe to this illuſtrious queen of heaven may be manifeſted, and ſome proof given of what they can do on ſuch occaſions: and letting alone what was done by all the convents and monaſteries, I come to other particulars, to which three poetical conteſts gave riſe: theſe were publiſhed ſolemnly on horſeback through the town, with the company of the town magiſtrates, and all the gentry, without exception. The firſt of theſe troops were defrayed by the cathedral, the ſecond by the celebrated monaſtery of the Conception, the third by the congregation of ſtudents founded in our college; and in all theſe there were prizes propoſed of great value for the poets; and thoſe who obtained them, had them given to them with great ſolemnity; and there were ſeveral repreſentations, with other diverſions, according to the cuſtom of that country.

And, ſince we are ſpeaking of what happened in thoſe holy feaſts, let us not forget as remarkable a paſſage as any: the day which it fell to the lot of our college to celebrate its feaſt, the father provincial, who was to preach before maſs, felt himſelf ſo moved with love and devotion to the ſovereign virgin, that, in a fit of extraordinary zeal, he invited the people to come after dinner to the proceſſion of our church, and to ſing before the image of our lady, that ballad which was in thoſe days ſo famous, and begins—

All the world in general
Says ſo, choſen queen of heaven,
That you are conceived even
Without ſin original.

The auditory was much edified with the piety of the good father, but ſmiled at his propoſal as impracticable; yet they all came at the hour, moſt out of curioſity to ſee the event of this novelty: they all took olive-branches in their hands, and began the proceſſion while our fathers ſung the ſtanzas. It was wonderful, that the ſame ſpirit which moved the father to ſuch an extraordinary invitation, moved alſo all the people to ſing before the image of our lady, which they carried thus to the cathedral; out of which the clergy coming to meet, and ſinging the church-hymns, the noiſe of the others ſinging was ſo great, that the canons were forced to give over, and accompany the people in their ſtanzas, ſinging altogether like ſo many children. They looked one another in the face, admiring at what they were doing, being ſcarcely able to believe; and if I myſelf had not ſeen it, knowing, as I do, the natural gravity of that people, I ſhould not have believed it neither; but the inward force of devotion can do any thing, when the Lord of hearts makes uſe of it to exalt the immaculate pureneſs of his mother.

The rejoicings and entertainments upon this occaſion laſted many days; one of them fell to the lot of the congregation of natural Spaniards founded in our college, who made a very ingenious and coſtly maſquerade, repreſenting all the nations of the world, with their kings and princes all clothed after their own faſhion, with their attendants, and laſt of all the pope, to whom each nation came with its king, to deſire his holineſs to favour this myſtery. The liveries were very coſtly, and there was a triumphal chariot, a great machine, in which was repreſented the church: but that which was moſt

moſt chargeable was the wax, which is very dear there; and this entertainment was given by night.

The other days were divided among the Negroes and Indians of all arts and profeſſions, who having a pious emulation to each other, made many rare inventions; but the merchants carried the belle in a tournament, which they performed in the great Place, each adventurer coming either out of a ſea, or a wood, or an enchanted caſtle, with his paper or challenge, acting their parts very well: they broke their lances, and received their prizes, which are things of great value. The gentlemen of the city crowned the feaſt with their uſual diverſions of bull-feaſts, running at the ring Juego de Cannas, &c. There are generally about twenty or thirty horſemen to attack the bulls, and throw the rejous or lances at them, beſides him who ſtrikes the bull dead. The illuminations of torches, with which they uſe to run about all night, are alſo of great diverſion; and upon this occaſion they did it with rich liveries, and other chargeable expences, for the greater ſolemnity of the time.

The ordinary and annual rejoicings which are obſerved on Midſummer, on St. John's day, St. James's, and the Nativity of our Lady, are alſo worth ſeeing, particularly on the day of St. Jago, who is the patron of the city; for then the royal enſign of the crown brings out the great ſtandard of conqueſt, with the king's arms, and is accompanied by all the gentry, who are obliged to appear on that occaſion, which they do very glorioufly.

There happen likewiſe ſome marriages or chriſtenings of the people of beſt faſhion, in which they make as good a ſhew as their eſtates will let them, and often above their abilities. In the bull-feaſts, thoſe who undertake them uſe to treat the royal Audiencia, and other bodies corporate; but in marriages they are profuſe, for the preſents to the bride have been brought in faſhion to be very rich, ſuch as ſlaves, carpets, ſcrutores filled with gold and jewels, and other curioſities of great value. There is not leſs ſpent in treats and banquets, particularly of late years, that they have taken to counterfeiting natural fruits, and other things, which ſerve for the ſideboard; ſo that, after a man has given a treat of all ſorts of birds and fiſhes, his entertainment is not gallant enough, if he does not add a deſert of preſerved citrons in all figures of love-knots, &c. and the other fruits imitated after nature: theſe they mingle on the cloth, with the figures of ewers, ſalt-cellers, jars, ſalvers, diſhes, ſpoons, forks, knives, all made of citron, covered with leaves of gold and ſilver; and the firſt thing the gueſts do, when they ſit down, is to plunder the table of theſe, for there are real ones of gold and ſilver for the banquet.

All this coſts extremely, becauſe the ſugar comes from Peru, and the manufacture of all theſe curioſities is very dear; many are the gueſts; and, beſides the wedding-dinner, the fathers give another the next day as ſumptuous. This is what nobody of faſhion can help doing. I have heard formerly, that firſt there were gentlemen, who, upon any of theſe public rejoicings, would do it all at their own charges, giving them all liveries of velvet, at the running of the ring for example; and yet then velvet was twice as dear as it is now. But at preſent that is left off, though they make expences equivalent in collations, bonfires, and other contrivances of great ſhew; for, upon theſe occaſions, they all think themſelves rich enough, which is a great ruin to families, every one ſtraining, out of vanity, to equal another, though the difference in riches be very great.

And now let us leave St. Jago, which has detained us more than ordinary, to ſatisfy the curioſity of thoſe who are deſirous to know the increaſe and progreſs of the cities and colonies of that new world, and how the chriſtian cuſtoms and government

have

have begun to flouriſh in it; and by this eſſay a judgment may be made of thoſe ſettlements. I paſs on to the particulars of the conqueſt of that kingdom, that I may afterwards give an account of the progreſs of the chriſtian faith, and the great hopes there is of its greater propagation.

CHAP. IX. — *The Governor Pedro de Valdivia purſues his Conqueſt.—The Gold Mines are begun to be wrought.—He ſends Proofs of their Riches to Peru; from whence the General Juan Baptiſte Paſtene brings him the firſt Succours.*

THE Governor Pedro de Valdivia having founded the city of St. Jago, began to think of fortifying himſelf in that poſt, to defend himſelf againſt the fury of the Indians, with whom he was every day engaged; and many men were loſt on both ſides, ſo that his men began to be uneaſy, and talk of going back to Peru, as Almagro had done; for though they ſaw the richneſs of the country, yet it appeared to them dearly bought, ſince they could not get any of it without running great hazards by the many engagements that they had with the enemy; ſo that they gave their lives for gone. The Governor Pedro de Valdivia was not ignorant of the difficulty of his enterprize; but yet encouraged by the hopes of ſucceſs, at laſt he reſolved rather to die than give it over; and being an experienced ſoldier, bred in the wars of Europe, he reſolved to raiſe a fort for the defence of his men, being convinced of the bravery of the enemy he had to do with; and though he was informed of a general riſing, which the Indians deſigned, he ſent ſeventy men to make an incurſion towards the river of Cachapoal. The Indians taking the opportunity of the abſence of theſe men, attacked the fort, and had gained it if the Spaniards had not ſhewed incredible valour in the defence of it till the other men returned; and by their aſſiſtance they repulſed the Indians, and remained conquerors.

The governor made good uſe of this advantage, both with the Indians and his own men; ſo that having quieted them, he began to work upon the mines of Quillota, which were of great fame: they proved ſo rich, and yeilded ſuch a quantity of gold, that he thought it adviſeable to make a fort there for the ſecurity of his men; but finding want of hands, by the loſſes he had had, he reſolved to ſend to Peru for relief. This he put in execution, giving at the ſame time an account of the richneſs and fruitfulneſs of the country, to incite people; and becauſe ocular teſtimony perſuades more than what we only hear of, he truſted ſix men, whom he ſent along with thirty others, to have a great deal of gold with them, cauſing beſides the ſtirrups of their horſes, and all that is employed of iron work about the bridles and ſaddles, to be made of maſſy gold, making the ſtirrups very great and large on purpoſe. But all this deſign was diſappointed; for theſe men, who were thus gilded like ſuns, were, when they came to the valley of Copiapo, fallen upon by the Indians, and all periſhed but two, who were Pedro de Miranda, and Monroy, officers, who got away by the help of their horſes; but being purſued by the Indians through mountainous ways, and their horſes tiring, they were taken by an Indian captain, called Cateo, who had a company of archers: they tied their hands behind them, and carried them to their Cacique, who deſigned to put them to death.

This Cacique was married to the heireſs of all this valley (for there inheritances follow the women, for greater ſecurity of the right line), and when theſe two were expecting nothing but the blow of death, it pleaſed God to inſpire the Cacica, or Cacique's lady, with compaſſion; and ſo ſhe went herſelf, and with her own hands

untied theirs, commanding their wounds to be dreſſed, and treating them with ſome of their drinks, which ſhe herſelf preſented to them, having drank firſt herſelf, according to their cuſtom, and bid them take courage, for they ſhould not die. They ſeeing themſelves brought, as it were, from death to life, threw themſelves at her feet, and dedicated themſelves to her as voluntary ſlaves, ſince by her favour they enjoyed a life which they gave for loſt.

The captain, who had taken them, ſeeing his Princeſs and Sovereign ſhew them ſo much favour, came to them, and bid them be confident of their lives, for that their lady having commanded they ſhould not be killed, there was not any one bold enough to look awry upon them: they were kept ſix months in this captivity; and though it was ſo gentle, by the kind uſage they met with, yet the natural deſire of liberty, and the hopes of returning to their friends, ſtill worked with them.

Let no man think himſelf ſecure that has his enemy within his own doors, nor let him truſt his priſoner, though yielded up to his diſcretion; for let him be uſed as well as can be, yet there is no happineſs like being his own man, and enjoying his liberty. This thought continually took up the minds of theſe two captains, ſo they laid a plot how to make their eſcape. They had obſerved in the Cacique a curioſity for horſes, which were creatures ſo new to thoſe Indian countries; they perſuaded him to learn to ride, and manage a horſe. He liked the propoſal, and began to exerciſe himſelf in this genteel amuſement, carrying with him nevertheleſs always his guard of archers, with an Indian before with a lance upon his ſhoulder, and another behind, with a naked ſword in his hand, more out of grandeur than diſtruſt; for he had no ſuſpicion of their plot, which was, to take an opportunity when he rid out to fall upon him, and kill him, as they did; for Captain Monroy, with an extraordinary intrepidity, without reflecting on the guard that attended him, attacked the Cacique, and Captain Miranda the reſt, with ſo much ſuddenneſs, that they made themſelves maſters of the lance and ſword; and beſtirring themſelves courageouſly, they wounded and diſmounted the Cacique; ſo that he died of his wounds in ſome months. Having gained the horſes, they ſaved themſelves upon them; and not being purſued in that diſorder, they overcame all the difficulties of thoſe ſolitudes, and arrived at Peru ſafe; where at that time they found the government in the hands of the Licenciado Vaca de Caſtro.

Theſe two captains were gentlemen of great families; and to this day the Mirandas in Chile are of the flower of the nobility of that kingdom. As for the Monroys, they are ſo known in Caſtile, particularly about Salamanca, that it is needleſs to ſay more of them. They were very well received by His Excellency, for the good news they brought of that diſcovery and conqueſt, of the pleaſantneſs of the country, and richneſs of its mines; and upon this relation, as Antonio de Herrera and other authors ſay, it was reſolved to further this conqueſt, which ſeemed to be of ſuch high importance, and to chuſe out ſome fit perſon, and accompany him with ſoldiers, arms, ammunition, and cloathing for the ſoldiers, who were almoſt naked.

He choſe for this employment Captain John Baptiſte Paſtene, a gentleman of the moſt antient and illuſtrious houſe of Paſtenes in Genoa; which family is at preſent extinct in that republick, and remains only in its records, where many of that name are in the books of the nobility, and among the greateſt dignities of the ſtate. This gentleman engaged in the conqueſt of the new world by the ſame deſire of glory which moved others, and to mend his fortune. He happening then to be in Peru, the viceroy took hold of the occaſion to employ him for the King's ſervice; which this gentleman accepted, and performed, going for Chile, where he arrived with ſuccours which that kingdom ſtood in ſo great need of.

This relief was received with great joy, as being in the beginning of the enterprize, and extremely wanted, the ſoldiers being much fatigued and weakened with the continual aſſaults of their enemies, without any other defence than their fort of St. Jago, where they had enough to do to ſhelter themſelves from their valour and fierce attack; but the arrival of theſe ſuccours gave them new courage, and reſolution to proſecute their enterprize. To undertake it with more regularity, and prevent what accidents might happen from the ſea, the governor ſent Paſtene with the title of lieutenant-general in his own ſhip, to diſcover the coaſt as far as the ſtraights of Magellan, as he did; and it appears by the letters of Their Catholick Majeſties, Philip II. and his ſon Philip III. how agreeable this piece of ſervice was to them. About this time the mines of Quillota being working with great profit, and Don Gonçales de los Rios being captain-governor of the work, the Indians brought him a full pot of great grains of gold, for a ſhew of a great deal which they ſaid they had found in a certain place. There they had laid an ambuſcade of ſeveral of their beſt men, to fall upon ſuch as, blinded with covetouſneſs, ſhould go to ſeek this treaſure. This happened accordingly, for they all run preſently to the place; for there is no alarm never ſo warm, that rouzes better than this deſire of growing rich at once did them: but they were much miſtaken; for inſtead of gold, they met with the iron of their enemies' lances, who killed them all but their captain and a Negroe, who eſcaped by the ſwiftneſs of their horſes: ſo the Indians remained victorious, and by the way of triumph, ſet fire to a frigate which the Spaniards had almoſt finiſhed to keep up their correſpondency with Peru.

CHAP. X. — *The City of Serena is peopled. — John Baptiſte Paſtene goes for more Succours to Peru, from whence he returns to Chile; and with Valdivia and other Captains, goes to help the Royal Army againſt Pizarro.*

HERRERA ſays, that with this relief which Valdivia received, he purſued his conqueſt on the people called the Promocaes; and that he was met by ſeveral Indians in the valley Quillocma, whom he overcame courageouſly, though with the loſs of ſome horſes; and at that time horſes were a thouſand crowns a-piece. Having diſcovered large provinces, and being ſatisfied of the great number of inhabitants in them, he returned to St. Jago. It is ſuppoſed the governor did all this in haſte, ſince he returned without making any fort or ſettlement: ſo it is probable he went this time only to diſcover, in order to form a force proportionable of an army: therefore the General John Baptiſte Paſtene being returned from diſcovering of the ſea-coaſts, he ſent him back to Peru to endeavour to bring more ſuccours, as he had done the firſt, and ſo form an army capable of enlarging his conqueſts upon ſuch powerful enemies, as he found the natives of Chile to be. Judging therefore that it was not yet time to leave any thing behind him unfortified, he founded in the valley of Coquimbo the city generally called by that name, but by him called La Serena, to ſerve for a reſting-place or Scala for the people who came from Peru to Chile; for being in great want of ſupplies, he did endeavour to facilitate by all means their paſſage, and draw as many people as poſſible to preſerve his conqueſt; for acting otherwiſe would only be to have ſo much the more to loſe; as indeed it happened, and ſhall be related in its due place.

The city of La Serena was the ſecond that was founded in Chile in the year 1544, in a very pleaſant and fruitful valley, watered by a very fine river, not of the biggeſt,

but of clear and admirable water, with which the fields are all ſo plentifully refreſhed, that their product is ſo various, that the inhabitants want almoſt nothing from abroad that is neceſſary for human life; for they have corn, wine, fleſh, all ſorts of other grain, and pulſe-fruits, even more than in St. Jago; for beſides all thoſe of Europe, and thoſe of Chile, they have two ſorts very extraordinary: the firſt is a ſort of cucumbers, which are very ſweet, and do not need paring, for the outſide is a very thin ſkin, ſmooth, of a delicate colour between white and yellow, all ſtreaked with a very fine purple; the other fruit is that which they call Lucumas, and is a fruit, as I remember, I have ſeen in Peru: it is a very wholeſome well-taſted fruit, the ſtone is ſmooth, and of a purple colour. The oil of this place is abſolutely the beſt in the whole kingdom, as clear and bright as one's eyes, and of a rare ſmell and taſte: they make great quantities, ſo that they ſend a great deal abroad. They have great flocks of cattle, though not ſo many as about St. Jago, becauſe it rains leſs, and ſo the paſturages are leaner.

But that which is moſt particular, and of greateſt value in this country, is the great abundance of rich metals, as gold, copper, and lead; ſo that though they have given over gathering of gold in all the other parts of Chile, becauſe other products are of greater advantage, yet in this place they go on gathering it more or leſs, according as the winter is more or leſs rainy; for when it rains much, the mountains are diſſolved, and the earth opened, and ſo the gold is eaſier found. And the copper too that is melted down here, ſerves for all the kingdom, and Peru beſides. The climate of this city is abſolutely the moſt temperate of all the kingdom; becauſe the winter, which in other parts is very ſharp, particularly nearer the pole, is here ſo gentle, that it is hardly perceived, it being within five or ſix degrees of the tropick, and being in the 29th degree of latitude, enjoys a moderate climate, the longeſt day being of fourteen hours, and is upon the 11th of December, as the ſhorteſt is on the 11th of June, and the night is of fourteen hours.

But the accidental ſituation of the city helps much towards the mildneſs of the climate: it is within two leagues of the ſea, having a plain before it all covered with myrtles: it ſtands on a riſing ground, having a proſpect to the ſea, which makes a beautiful bay, abounding in fiſh of all ſorts; by which it is an excellent place to paſs the Lent in, fiſh being very cheap: but the good cheer is alſo as well out of Lent; for beſides the mutton, which is excellent and very nouriſhing, there is plenty of tame fowl, partridge, turkeys, and all ſorts of wild fowl. This city began to be inhabited by many noble families, the founders being men of the beſt quality that came to Chile; and their deſcendants have remained, and do maintain the luſtre of their anceſtors. The governor-general appoints the place of Corregidor, or mayor of the city; and it is one of the moſt profitable places that are, becauſe of the mines which are wrought in its territory: but notwithſtanding all theſe good qualities which we have mentioned, this city does not increaſe ſo faſt as that of St. Jago; for this laſt may be compared to the clove-tree, which ſucks to itſelf all the ſubſtance of the earth round about it, a thing which is proper enough to capital cities every where.

About this time the General John Baptiſte Piſtene arrived at Peru for a ſecond ſupply of men, which Pedro de Valdivia deſired of the viceroy, to carry on his conqueſt; but he found the whole country in confuſion, cauſed by the ſtubborn diſobedience of Gonçalo Pizarro, ſo that the government wanted relief itſelf, inſtead of being in a condition to relieve others. This was ſo true, that Paſtene was forced to return to Chile, to bring a force from thence to join with the royal army. This reſolution it is probable came to the knowledge of the tyrant Pizarro; for he found means to ſeize his

his ſhip and his perſon by cunning. Paſtene, though much preſſed by Pizarro both by promiſes and threats to join with him, as very well knowing how much he might aſſiſt him as his friend, or injure him as his enemy, yet perſevered in his loyalty to the King, and found means to make his eſcape out of the hands of the tyrant, and to recover his ſhip too; which having new fitted with neceſſaries, he returned to Chile, to bring from thence ſome of the beſt officers to encourage the royal army, which was preparing to engage Pizarro, who on his ſide had ſuch a force, that he had put to death the viceroy Velaſco Nunnes Vela. In Chile they were waiting for his return, and the ſuccours he ſhould bring with him; but when they ſaw him without any, they were much troubled; for they found themſelves obliged at leaſt to ſuſpend all their projects upon Chile, to go and relieve thoſe upon whom their own preſervation depended.

The Governor Pedro de Valdivia, as ſoon as he heard what paſſed in Peru, reſolved to go thither in perſon with ſome of his beſt officers and ſoldiers to join and help the King's forces. He left in Chile for his lieutenant Captain Franciſco de Villagra, a gentleman of great courage and good parts, that he might govern and preſerve what we had already in that kingdom, it being impoſſible to do more, or make any further progreſs, till the times ſhould alter, and he provide more forces. He got together what gold he could, and went aboard with his captains and ſoldiers in the ſame ſhip, under the conduct of the ſame General Paſtene. His arrival at Peru gave great courage to the King's forces, by reaſon of the gold and men which he brought, the valour and experience of which was ſo great, that in the battle they performed extraordinary things, being the chief cauſe of the victory obtained over Pizarro in the valley of Quiriguana. He himſelf was taken, and chaſtiſed with his guilty aſſiſtants, as his folly deſerved, and his diſloyalty to his Prince. The preſident of Peru, Gaſca, always adviſed with the Governor Valdivia in all his moſt important affairs, whom he made of his council, with ſix more, for the ſecreteſt affairs and of moſt importance, making great eſteem of his prudence and experience, as well as of the valour of his companions.

The victory being obtained, the governor returned to Chile, with a good ſuccour of men and arms, and the ſame officers and ſoldiers, who accompanied him to Peru, with which, and other ſuccours which came afterwards, he was in a condition to purſue his enterprize vigorouſly, as we ſhall ſee hereafter. But all was little enough againſt the reſiſtance of the Indians, who not only kept them from advancing, but for ſix years together that their ſtubborn oppoſition laſted, they reduced the Spaniards to great extremities of nakedneſs and hunger; ſo that they were forced to eat herbs and roots, and rats and mice, and ſuch things; and if the heart and courage of the Governor Valdivia had not been invincible, it would have been impoſſible to have made the conqueſt.

CHAP. XI.—*What happened in Chile during the Abſence of the Governor Valdivia, and after his Return; and of the new Succours he received.*

PEDRO Sanches de Hoz was a ſoldier, to whom the King was pleaſed to grant a patent for the diſcovery and conqueſt of certain lands, to begin from the juriſdiction of the Marquiſs Francis Pizarro; and he pretending that part of the kingdon of Chile was in his grant, oppoſed the Governor Valdivia, to whom Pizarro by a royal commiſſion had given the conqueſt and government of Chile; but the marquiſs perſuaded him to deſiſt, and go along with Valdivia to Chile, recommending his perſon to the governor, to uſe him with regard, and give him a ſhare in the beſt part of his conqueſt. Val-

divia did ſo, beſtowing on him the richeſt lands of the Indians; but the ambition of commanding is always very contentious, and ſubject to complain till it gets the upper hand. This appeared in Pedro Sanches de Hoz, in the abſence of the governor from Chile; for being vexed that he was not left with the authority of lieutenant in his room, he plotted to take away the life of him who had it, which was Franciſco de Villagra, who having notice of his deſigns, ſeized upon Pedro Sanches de Hoz, and cut off his head, by which he aſſured his own; and Valdivia approved of the thing as well done, when he was informed of it; becauſe he was a friend to juſtice, and becauſe a competitor is never ſorry to have his competitor removed.

About this time, the Indians of Copiapo, who had begun to imbrue their hands in the blood of the Spaniards, in purſuance of the revenge of their Prince's death, whom the Captains Miranda and Monroy had killed, as we have related in the ninth chapter, lay in wait, and ſurpriſed Juan Bon, with forty ſoldiers more, of ſome companies which were coming from Peru, and marching through their country; theſe they put all to death. After their example the Coquimbeſes attacked the ſoldiers and inhabitants of the city of La Serena, whom they killed without ſparing one, and ſet fire to the city, which they ruined utterly, not leaving one ſtone upon another.

All this being underſtood by the governor at his return from Peru, he ſent Captain Francis de Aguirre with a good force, to follow them to their retiring-place, where in ſeveral rencounters, in the valley of Copiapo, he overcame the Indians: all which was as much owing to his great valour as conduct, without which the force he had would have proved inſufficient (as Herrera obſerves). He did the ſame in the valley of Coquimbo, and rebuilt the city of La Serena, in the place and ſituation where it now ſtands. For which reaſon he was looked upon as the true founder of it; and his deſcendants, who are of the beſt nobility of the kingdom, have preſerved that prerogative, and are the chiefeſt in that government, or rather the maſters of it; for they are ſo numerous and ſo powerful, that they yield to none in reputation, and are accordingly reſpected by all.

Let us now treat of that which it is not reaſonable to forget; which is, of thoſe captains, who in thoſe early times entered Chile with ſuccours of men to help to conquer it, ſince it is juſt their memory ſhould live for ever in thoſe who enjoy the fruits of their labours, and are now maſters of what they gained with their blood and ſweat, and the loſs of many lives, and danger of their own, which they expoſed in ſo many battles and encounters they had with the enemy. I am only ſorry, that I cannot ſpeak of them all, and deſcribe in particular their good qualities and great merits, becauſe I am in a place where I want memoirs and informations for ſuch a work; but I will ſay what I can of their noble actions, as I find them recorded in other hiſtories; though to ſay truth, that which they ſay about Chile is ſo little, that it is almoſt next to nothing. I am not ſurpriſed at it, for it is a place much out of the way, and its conquerors were buſier with their ſwords than with their pens; for their enemies preſſed them continually with ſo much vigour, that they had but little of that leiſure which hiſtories and relations require. We ſhall begin with the Governor Pedro de Valdivia, who was the firſt that entered the kingdom with a force, as has been related; then that which General Paſtene brought afterwards with arms and cloaths. The ſuccours brought by Captain Monroy proved of great importance; as Herrera ſays, it was of three-ſcore men, which in thoſe days was as much as ſix hundred now: theſe he had hired in Peru, being much aſſiſted by the viceroy, who, upon the relations of Monroy and Miranda, was reſolved to encourage the enterprize.

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I am not certain, whether it was before this, or after, that arrived the ſuccours ſo opportunely brought by Captain Chriſtoval de Eſcobar Villaroel; for I do not find it mentioned in any of the hiſtorians, which I have read here; but in Chile the memory of it is very freſh, and will never be forgot; not only for his coming in a time when they extremely wanted ſupplies, but alſo for that circuſtance of this noble captain's having brought theſe ſuccours upon his own charges, (and I think they were ſeventy men,) and made his way by land to Chile, either by the wilderneſs of Aracama, or by the Cordillera, either of which muſt coſt a great ſum of money, for it is above five hundred leagues.

This action alone was ſufficient to ſhew the nobleneſs of this gentleman, if that of his family had not been ſo well known as it is in Spain; but he continued to give proofs of his zeal for the King's ſervice, by ſerving in perſon, and employing alſo his ſon Captain Alonſo de Eſcobar Villaroel, whom he had brought with him from Spain, that they might both give an example to their poſterity, as they have; not yielding to any, but have produced many noble perſons, both in arms and other civil employments of the government.

When I reflect upon thoſe I have known of the deſcendants of this famous head and conqueror, I find, that between ſons, grandſons, and great grandſons, they come up to eighty-ſeven; and if they had not been ſo many, there was enough to honour this family in the ſeven or eight ſons of the General Luis de las Cucuas, grandſons of this gentleman, with whom he preſented himſelf to the royal army, all armed cap-a-pé, in which they ſerved many years at their own charges; for in thoſe days the inhabitants that were gentlemen had no other reward but their loyalty, and the glory of ſerving their prince. Antonio de Herrera makes mention of another ſupply, of one hundred and eighty men, conducted by Captain Franciſco Villagra, who was afterwards governor of Chile, and to whom that kingdom owes a great deal of its being, for the hazards he ran, and the noble actions he performed in its conqueſt, as we ſhall ſee hereafter, and may be read in the general hiſtory, to which I appeal. The nobility of his family was always notorious, and the gentlemen of his name have ſhewed themſelves worthy of it, in the great ſervices they have and do perform every day for the King, worthy of all ſorts of acknowledgment and reward.

After this, in the time of the viceroy Don Antonio Hurtado de Mendoça, His Excellency, as Herrera ſays, he ſent Captain Don Martin de Avendano by land, with good ſuccours of men, and three hundred and fifty mares and horſes, which were of as much importance for the war as ſo many men. The deſcendants of this gentleman are ſtill carrying on the luſtre of his family, ſo known in Salamanca and other parts. I was acquainted with two brothers of that name who alone might preſerve and increaſe the reputation of their family; the one was Colonel Don Antonio de Avendano, who was colonel of the regiment of Arauco, who ſignalized himſelf at the head of that regiment in many rencounters with the enemy, and particularly in one, where our camp was defeated, and where, to preſerve the reputation he had gained in ſo many noble actions and imminent dangers, he choſe to die, being wounded in a great many places, and almoſt cut in pieces by the furious enemy. The other was Don Franciſco de Avendano, likewiſe colonel, and who came to Spain; where His Majeſty, in conſideration of his own and his anceſtors' merit, honoured him with the habit of St. Jago, and the government of Tucuman, where he died.

I do not mention thoſe companies, out of which, as they paſſed by Copiaco, forty were killed, with their leader Juan Bon; becauſe Herrera, who ſpeaks of this, does

not

not ſay who was the captain of them. Perhaps there were alſo other commanders, who in thoſe ſix years time entered into Chile with men; and I ſhould be glad to be where I might have particular information of them, to do them at leaſt that ſmall honour of putting their names in print, and giving ſome glory to actions which, perhaps, deſerve to be graved in braſs.

I do not likewiſe ſet down here, that famous ſupply of men brought by the ſecond governor of Chile, Don Garcia Hurtado de Mendoça, Marquis of Cannete, for this ſhall be ſpoke of in its proper place, after the death of the Governor Pedro de Valdivia; and thus we ſhall conclude thoſe who entered by the way of Peru. For though ſince that time, there have been ſeveral ſupplies, and are every day ſtill more, yet they have not been remarkable enough, as not having come at firſt, but after the ſettlements were made; and beſides, it would carry me too far to report them all. But I ſhall add here thoſe which have come from Spain by the way of Buenos Ayres, as well becauſe they were the moſt numerous, ſome having been of five hundred or a thouſand men, as having come in dangerous times, when the kingdom was ready to be loſt, the enemy having, as it were, beſieged it; and ſo it is juſt to preſerve the memory of ſuch famous benefactors, who have been, as it were, fathers of their country.

CHAP. XII. — *The Governor Pedro de Valdivia purſues his Conqueſt, and peoples the City called of the Conception, where he had like to have been deſtroyed in a Battle.*

THE Governor Pedro de Valdivia, ſeeing himſelf with a good force, and the greatneſs of his mind perſuading him that he had wherewithal to put an end to his enterprize, Herrera ſays he ſent to the other ſide of the Cordillera, from St. Jago, Captain Franciſco Aquirra with a good number of men, with which he paſſed thoſe terrible mountains, and founded the Diagutas and Juries.

Herrera ſays no more: nor do I know any thing of thoſe individual places and cities which he founded. The Governor Valdivia, on his ſide, ſet out of St. Jago with a powerful army, and, paſſing the furious river of Maypo, Cachapoal, Tinguiritica, Peteroa, Tena, and Metaquito, he conquered the Promocaes, a warlike people, who had reſiſted Almagro, and, before that, had repulſed an army of fifty thouſand men, which the Inga had ſent againſt them when he endeavoured to conquer Chile; but the good fortune and great valour of Valdivia and his men overcame that which ſeemed invincible, though I am perſuaded that it was not without blood: but I refer myſelf to the general hiſtory of Chile, which has deſcribed the particular encounters and battles on both ſides.

The army paſſed the deep river of Maule, and the wide Itata, and coming to that of Audalien, quartered by the ſea-ſide; and, for the conveniency of ſituation, he founded there the city of the Conception in the year 1550. But the natives, aſtoniſhed and enraged at this boldneſs of ſtrangers, to enter thus into the heart of their country, as if it were their own, called a general aſſembly, and, with a numerous and brave army, preſented them battle ſo furiouſly, that our people began to wiſh they had not engaged themſelves ſo far. Much blood was ſhed on both ſides; and our army was in great danger of being deſtroyed, till it pleaſed God, (who guides all things to his ends,) who was to reap the fruit of his victory over thoſe Gentiles, whom he had predeſtinated by the means of the Goſpel, which was to be preached to them in caſe the Spaniards were victorious, to make them ſo at laſt, and that very glorioufly, the famous

Anabillo,

Anabillo, chief head of the Pencones, remaining priſoner, after having behaved himſelf with great bravery in the fight.

The ſituation of the city of the Conception is on a plain where the ſea makes a moſt beautiful bay, in form of a half-moon; and nature has provided a mole, by putting there a large iſland, behind which ſhips ride ſafe from the north wind. By land, towards the eaſt, it is encompaſſed with ſome high hills, the ſides of which are all planted with vines and other fruit-trees; ſo that, which way ſoever one looks, the proſpect terminates in beautiful plantations of trees, or rather a green ſemicircle, which rejoices the ſight, and fortifies the city. From the north, there comes into it a ſmall river, which comes down from the mountains, which we have already deſcribed in the chapter of the rivers of Chile. On the ſouth ſide, another larger deeper river runs by it, and is called Audalien. Neither of theſe rivers does the kindneſs to the city which Mapocho does to St. Jago, that is, to come into the houſes; but the want of this is ſupplied by excellent fountains of chryſtalline and delicate water, which riſe very near the city, and are brought into it particularly very plentifully, and which were carried to the public place by the General Don Diego Gonçales Montero, he being Corrigedor of this city, and governing it with the ſame prudence and generoſity, that he ſince governed that of St. Jago, in the ſame quality of Corrigedor and lieutenant-general.

This city is in the latitude of thirty-three degrees and five and forty minutes to the antartick pole; and for this reaſon, and becauſe of the high land it ſtands upon, the air is ſo temperate, that the heats never are troubleſome, nay, in the heat of ſummer, it is neceſſary to have as many bed-clothes as in winter, which is not at all ſevere, becauſe it never ſnows there, though it rains extremely. For the ſecurity of the city, there was erected a good fort for our people to retire to when preſſed by the Indians, which often happened, and made them ſtand to their arms almoſt continually; for they, impatient of any yoke, were inceſſantly taken up with the thoughts and endeavours of driving them out of the country, and, notwithſtanding all the care that was taken, the city was loſt at laſt, for the enemy overpowered us: but yet in length of time it was built again, as we ſhall ſee; though ſtill remaining a frontier to the enemy, it has not had ſuch increaſe as St. Jago. But it gains ground, and has many rich inhabitants, who have entered upon a great vent of ſalt, fleſh, and hides, which is one of the richeſt commodities of Chile; and they have, beſides, magazines of flour, with which they furniſh the army: the wines, too, of thoſe parts are generally better than thoſe of St. Jago, though they are lower ceps or vines; nay, the grapes ripen as they lie along on the ground, as it is in many parts in Europe: they have not that abundance of almonds, oil, oranges and lemons, pulſe, Agi Legumes, and dried fruit, as in other parts of Chile, their ſummer being ſhorter, and the ſun having leſs force.

The Spaniſh children born here are of a very ſweet nature, and docile; of good wits, and take to learning very well. The men are loyal, faithful keepers of their word, friendly, and ſuch as for their friends will venture any thing to defend them in their honour and fortunes, even with the hazard of their own, and their lives too: they are very well diſpoſed to virtue, having good inclinations; and thoſe among them, who have taken to arms, have extremely ſignalized themſelves. They are bred in great ſimplicity, as being far from the corruption of the court, which generally improves the malice, and raiſes the libertiniſm of young people. The biſhopric of this city is a poor one, not being worth above two or three thouſand pieces of eight a year, becauſe, though the land is rich of itſelf, and that in which there are moſt mines, yet the Decimes or tenths are very ſmall, becauſe of thoſe continual wars which this city has maintained from its beginning; for we may ſay, it has been nurſed with blood, and grown up in arms,

arms, not having laid them down in ninety-five years, which is no ſmall evidence of the good qualities of its inhabitants, and what it may be henceforward, when this dead weight is taken off. Another cauſe of the ſmall revenue of this biſhoprick, is the loſs of ſeven cities, ſome of them the richeſt of the kingdom, which all belonged to its dioceſe.

In the year 1567, there was ſettled a high court of chancery, which remained till the year 1574, and afterwards it was removed to St. Jago, where it now is: and though its juriſdiction reaches as far as this city, there is little for it to do, becauſe the governors are generally preſent, to be nearer the garriſons, and countenance and aſſiſt the war, of which there is a continual neceſſity. The garriſon is very numerous, and of choice ſoldiers, where every day they mount the guard, as it is practiſed in places of war. The general provides all the officers, even to the colonels; but His Majeſty names the treaſurer and muſter-maſter-general, who is the ſecond perſon after the governor: this is a poſt of great eſteem, and no ſmall value in this kingdom; and there go through his hands three hundred thouſand ducats of the King's money, which every year is to be diſtributed among the officers and ſoldiers, who are enrolled in his books.

CHAP. XIII. — *The Governor Pedro de Valdivia proſecutes his Conqueſt, and founds the Cities of Imperial, Valdivia, and Villa Rica, and raiſes three Forts in Arauco.*

THE Governor Valdivia having ſpent the year 1550 in peopling the city of the Conception, and defending himſelf in his fort againſt the continual attacks of the enemy, and having, at the ſame time, informed himſelf more exactly of the country, and its fertility, by the means of Captain Hyeronimo de Alderate, who had gone through it, and obſerved the number of its inhabitants, reſolved to go out of the Conception, and purſue his conqueſt. In order to this, after having well provided his fort, and left a garriſon in it, he ſet out in the beginning of the year 1551.

He took his way with his army by the plains of Angol, croſſing firſt the great river Biobio, and coming to that of Cauten, which, for its gentleneſs, is called the Ladies River, when joined with another very pleaſant one near the ſea: here he found great ſettlements of Indians, and founded the city of Imperial. This is one of the moſt agreeable ſituations of the whole kingdom, being about three or four leagues from the ſea, and thirty-nine leagues from the Conception, and a hundred and nine from the city of St. Jago, in thirty-nine degrees of ſouth latitude. All the territory of this city is very fruitful, bearing corn, and all ſorts of pulſe and fruits, though the black grapes do not ripen ſo kindly as the white ones and the muſcadines: the country is not all plains and valleys, nor all hills, but rather a compoſition of the whole; the hills are gentle and tractable, with good paſture and ſhelter for cattle; the ground does not want much watering, it having frequent and large dews that fertilize it. The city was ſituated upon a pretty ſtiff hill, and the confluence of two navigable rivers; but the port is not good, for the flats there are within three fathom and a half of depth. Here the governor met with fourſcore thouſand Indians ſettled, nay, ſome authors ſay, they were many more; and all agree that they were a quiet and good-natured people, not at all ſo warlike as the Araucanos.

This city was the head of the biſhoprick, and it began to increaſe at firſt very much, by reaſon of the excellency of its ſoil and ſituation; and if it had not been deſtroyed, as we ſhall ſee hereafter that it was, it would by this time have been a great city; for it was already very well peopled, and muſt have increaſed, if the gold mines which are in its neighbourhood had been wrought.

This city, which was the fourth of this kingdom, being thus founded, the governor divided the territory, and gave the lordſhips to his conquerors, according to the royal privilege he had ſo to do, that he might engage the Spaniards to enter more heartily into his enterprize. He took for himſelf the lordſhips of Arauco and Tucapel, as far as Puren, except ſome manors that he gave to others, to content all. Having left a force, which ſeemed ſufficient in the city of Imperial, he marched as far as Valdivia. Being come to that famous river, and deſiring to paſs it, to conquer the land and people on the other ſide, the brave Indian lady, called Recloma, hindered him, offering to paſs the river alone ſwimming, and to reduce the Indians to his obedience, as ſhe did, and we have already related in the ninth chapter of the firſt book; and there likewiſe is a full deſcription of the ſituation of the city, and all its other qualities, which it was proper to make in that place, and ſo it is not neceſſary to repeat here. The governor having founded the city of Valdivia, erected a fort, and ſettled all things as he had done at the Imperial. While he ſtayed there to purſue his ſettlement, he ſent Captain Hyeronimo de Alderate to diſcover the country as far as the Cordillera Nevada; and he having ſent to the governor relations of his diſcoveries, as he went founded a town, which he called, by the excellency, Villa Rica, the appearances of the riches of that country being greater than any yet had been diſcovered.

Though the ſituation he choſe ſeemed at firſt to be the beſt, yet in time it was reſolved to change it, and place it upon a great lake, at the bottom of the Cordillera, and about ſixteen leagues from the Imperial, and forty from the Conception. It has not ſuch a plenty of corn and wine as the others, but it has enough, and many other good qualities, which I omit, becauſe it being ſince deſtroyed with other cities, already mentioned, I am likewiſe forced to be ſilent of their particular properties, and refer myſelf to the general hiſtory of Chile, which will embrace all thoſe particulars.

Theſe were the cities planted and peopled by the governor Valdivia; and though I have not, as to theſe laſt, made mention of the blood ſpilt in gaining them, it is not to be imagined but that they coſt dear enough, ſince the conteſt was with ſuch warlike nations, that it ſeemed a great raſhneſs (and would have been ſo without a particular protection from heaven) to undertake ſuch enterprizes. There are not wanting thoſe who blame the governor Valdivia, judging that he did not meaſure well his ſtrength, but graſped more than he could hold, as he found by a ſad experience at his own peril in a little time.

The authors who ſpeak of theſe attemps are full of the commendation of the valour, patience, and ſufferings of the Caſtilians; but all this would not have done, nor have ſubjected thoſe people, nor twice that force could have prevailed againſt them, if, becauſe they ſaw them on horſe-back, and killing people at a diſtance, they had not believed them to be Epunamones, by which name they called the gods they adored; ſo they imagined them to be immortal, and that they came from above with a power to ſend out thunderbolts like God: for having never ſeen either ſmall arms, or great artillery, they thought the noiſe was thunder; and to this day that ſort of arms is called Talca, which in their language ſignifies thunder; and out of the ſame imagination they called the Spaniards Viracochas, which is as much as to ſay, ſcum of the ſea, or a people come by ſea, giving to underſtand, that thoſe men, if they were men, were ſent from God to ſubject them. This made them ready at firſt to ſhow all reſpect to the Spaniards, and kept them from rebelling, and reſiſting ſo vigorouſly as they did afterwards, though they always made ſome oppoſition, particularly the Araucanos, who have ever been the eagles among the Indians. Valdivia having well obſerved this, was content at preſent with what he had conquered, and returning to

Arauco

Arauco by Puren and Tucapel, he cauſed three ſtrong houſes to be erected in the diſtance of eight leagues from one another, and in ſuch places as might have an eaſy communication together. Having thus ſettled matters, he returned to the Conception, and ſo to St. Jago; from whence he diſpatched Captain Hyeronimo de Alderate to Caſtile, to give the King information of the riches that were diſcovered in that country, and its other good qualities; as alſo a relation of the ſettlements made there, in order to obtain a ſupply of people, which was granted. The cities newly founded were in great danger of being loſt; for indeed they were more than our forces could protect, and the Indians ſhewed great impatience, and fretted to ſee foreigners ſettle cities in their country, and erect forts and ſtrong places for their ſecurity.

The governor being informed of this diſpoſition of the Indians, ſet out from St. Jago with a ſupply of men which he had received from Peru, under the conduct of Don Martin de Avendano, and relieved all the garriſons; which having done, and preſuming they were ſafe, without reflecting on the danger that threatened him, he applied all his intention to give a beginning to the working of the gold mines for a deſign he had.

This was to go to Spain, and carry with him all the gold he could get together, to ſhew the King the vaſt riches of the country, and to obtain from His Majeſty thoſe titles of honour which were generally beſtowed upon the conquerors and diſcoverers of thoſe Indian kingdoms, and ſo bring back a good force to ſubdue them. For this end he did two things; the firſt, to ſend to the ſtraights of Magellan, in the year 1552, Franciſco de Ulloa, that with two ſhips, which were equipped on purpoſe, he might diſcover all the ſtraight, and give an account of it, ſo that he might know how to undertake the voyage to Spain that way: the other thing he did, was to ſet people to work to find out new gold mines, which they eaſily did, there being ſo many in theſe parts; among which, the moſt famous were the mines of Quilacoya, four leagues from the city of the Conception; and others in Angol, to work which he employed twenty thouſand Indians. It is eaſy to imagine how much gold ſuch numbers of men might get from thoſe mines, which had never been touched till then; it was very great, and enough to enrich both governor and ſoldiers, which it did: and with the acquiſition of ſo much treaſure, they began likewiſe to deſpiſe their enemies; who, while they were buſy in ſearching the bowels of the earth for gold, were employed in thinking how they ſhould recover their loſt liberty, and free themſelves from the yoke of ſubjection, which they had never felt before.

The city of the Conception went on proſpering, becauſe of the great quantity of gold brought into it every day; by which means the minds of the inhabitants were elevated in proportion, and the ſoldiers grew wanton and inſolent. The governor being tainted with the ſame diſeaſe of too much proſperity, neglected to take notice of theſe diſorders; for the deſire of riches increaſing by riches, which they ſaw every day fill their coffers, they were leſs attentive to that which ought moſt to have drawn their attention, which was their own and the King's preſervation, and ſo made way for that blow of fortune that laid them all along.

The Araucanos were as uneaſy, and continually plotting how to compaſs their deſigns, and at laſt reſolved to riſe unanimouſly againſt the Spaniards, and take their revenge of them. To try how it would be taken they began to talk big, and carry themſelves haughtily, more like maſters of the land than like ſervants; they quarrelled with one and the other, and loſing all reſpect drove the thing ſo far as to kill ſome Spaniards in theſe conteſts: and then perceiving that theſe things were diſſembled, and that their boldneſs had its deſired effect, they grew every day more inſolent; and at laſt

laſt being thoroughly ſatisfied that the Spaniards were neither gods nor immortal, nor of any other ſpecies than they, but ſubject to all human infirmities, they began to fear them no longer, but reſolved to fall upon them.

CHAP. XIV. — *The City of Angol is peopled, and the Indians riſe againſt the Spaniards.*

UPON occaſion of the mines that were begun to be wrought in the diſtrict of Angol, the governor Pedro de Valdivia ſettled a city of that name there, which was alſo called the city of the confines. Some attribute this foundation to the Marquis of Cannette, Don Garcia Urtado de Mendoça, who governed after the death of Pedro de Valdivia: perhaps the reaſon of this is, that the ſituation of this city at firſt was three leagues from the place where it now ſtands: ſo it might be that Valdivia firſt ſettled it, and the Marquis removed it to the place it is now in, and that was ground enough to make him the founder.

The preſent ſituation is in a plain, very large and diſengaged, eight leagues from the Cordillera, and twenty from the Conception; ſome ſay ſixteen, which perhaps is cauſed by the difference of its two ſituations. Their longeſt day and longeſt night are of fourteen hours and a half. The land is very fertile; fruits ripen very well: there is good wine, and good ſtore of raiſins dried in the ſun, figs, and other dried fruits; a vaſt quantity of tall cypreſſes, which yield a very ſweet-ſcented wood, of which, Herrera ſays, there is made a gum-lac. The great river Biobio runs by it, and ſerves it for a wall and ditch on the ſouth ſide; and on the north ſide another pleaſant rivulet comes running from hills of a moderate height, and turns many mills for the uſe of the city. Thoſe whom I have known that have been born in this city, have proved very gentle in their diſpoſitions, of good wits, and noble inclinations, very friendly and real, and extremely loyal to the King, as indeed all the Chilenians are, looking upon that as the higheſt *puncto* of their gentility.

Now let us return to the Araucanos, who were buſy in calling together their aſſemblies there, to treat how to caſt off the yoke of ſervitude, and make themſelves maſters of that which was truly theirs. So it was, that the Caciques being poſſeſſed with an opinion that their forces were not inferior to the Spaniards, began to call them together; and they needed no incitements of pay or money; for the love of their liberty, and poſſeſſions, and poſterity, was a ſufficient ſpur to them, thinking every day a year that kept them from engaging with their enemies, and conquering them. The Caciques that met were theſe: firſt, Tucapel, a great butcher of Chriſtians, with three thouſand ſoldiers; Angol, who was very brave, with four thouſand; Cayocupil, with three thouſand men, whom he brought from the Cordillera, as hardy as the rocks they came from, and made to endure any labour; Millarapue, an old man, of great wiſdom, he brought five thouſand; Paicavi, with three thouſand; Lemoleno, with ſix thouſand; Mareguano, Gualemo, and Leucopie, each with three thouſand; the robuſt Elicuera, held for one of the ſtrongeſt men, with ſix thouſand, and they antient; and chief of all, Colocolo, with as many more. Ongolmo offered four thouſand; and Puren ſix thouſand; Lincoyce, who was of the ſtature of a giant, offered to bring more than any; Peteguelen, lord of the valley of Arauco, from whence the whole took their name, came with ſix thouſand; and the famous Caupolican, and his two neighbours Thome and Audalican, and many others, kept themſelves ready to come in with their ſubjects. They met, according to their cuſtom, to eat and drink at their appointed ren-

rendezvous, for that never is omitted in theſe aſſemblies; and having been unanimous in the firſt and chief point, which was to riſe, there was ſome difference about the choice of a general, every one deſiring to have that command, as it generally happens in ſuch elections; every one alledging their particular merits; the one his valour, another his experience, another his good fortune, and none ſeemed to want a pretence for obtaining their deſire. They grew warm in this ambitious conteſt, and would have come to blows, if the old and wiſe Colocolo, by his prudence and authority, had not quieted them, and reduced them to conſent to chooſe Caupolican, not only as the braveſt ſoldier, but the ableſt chief. This done they all ſwore obedience to him, and promiſed to obey his orders, for the better carrying on of their common deſign.

The Spaniards had, as we have already mentioned, three caſtles for their ſecurity, and one of them was near the poſt where this aſſembly was kept; and the Indians, proud and impatient, had a mind to attack it immediately; but Caupolican, their general, forbid it, in order to do it with more dexterity and ſafety. He commanded Palta, who performed the place of ſergeant-general, to chooſe him out four-ſcore ſoldiers, of the braveſt, and ſuch as were leaſt known to the Spaniards, and the Indians their friends; theſe he put under the conduct of two very brave men, Cayaguano and Alcatipay, and ordered them to enter the caſtle with their arms by this ſtratagem. The Araucanos, though in peace, were not permitted to enter the caſtle, except ſuch as ſerved the Spaniards; and theſe entered often with their loads of graſs, wood, and other neceſſaries for the garriſon. Caupolican ordered theſe four-ſcore men to feign themſelves to be ſervants of the Spaniards, and having hid their arms in the graſs they carried, to anſwer nothing, but pretend they did not hear if they were aſked any queſtions: they acted their parts to the life, ſome counterfeiting lameneſs, others wearineſs, ſo that they were all let in without ſuſpicion; then they took their arms out of the graſs, and fell unanimouſly upon the Spaniards, who were much aſtoniſhed at ſo unforeſeen a boldneſs. However, they gave the alarm, and all coming out of their quarters, reſiſted them, ſo as to kill ſome of the Indians: the others either out of fear of the Spaniards, or on purpoſe to draw them out of the caſtle in their purſuit, retired, on purpoſe to gain time till their general Caupolican could come up with his army; which he did with a very numerous one, and forced the Spaniards to retire to their fort. He beſieged them in it, and after having killed many of them, thoſe who remained alive were glad to leave the poſt, and get away, judging it better to retire to Puren, leſt they ſhould loſe all; whereas being joined to the garriſon of Puren, they might better reſiſt the enemy, though he was very powerful, and much elevated.

The news of this invaſion ſoon reached the Conception, and the governor Pedro de Valdivia, who was then there, began preſently to conſider how to remedy ſo great a miſchief. Some blame him as tardy in doing of it; for to ſecure the treaſure of the mines, where (as Herrera ſays) he had fifty thouſand vaſſals at work to get gold for him. Before he went to ſuccour thoſe in Puren, he went out of his way, and ſtayed the erecting of a fort at the mines, which took him ſo much time, that he came later than was requiſite to their relief. But, indeed, if any thing was ill done by him, it was the making too much haſte; for without ſtaying for the relief and ſuccours he might have received from the other cities, he ſet out with a force not ſtrong enough to encounter that of Caupolican: his courage deceived him; for being elevated with his ſucceſſes, and truſting to his fortune, he ran into the precipice, as we ſhall ſhew in the following chapter.

CHAP.

CHAP. XV. — *The Governor Pedro de Valdivia, and all his People, are killed by the Indians.—The famous Action of Lautaro is related, that being the chief Cauſe of this Event.*

THE time of this great captain's death was now come; all things, therefore, ſeemed to concur to that end. The preſent remedy that was to be applied to this miſchief, to ſtop its progreſs, and the delay of thoſe ſuccours he expected from the other garriſons, were all combining cauſes: his heart miſgave him at his ſetting out from Tucapel. He had ſent out parties to bring him an account of the ſtate of the enemy, but none came back: this gave him ſome apprehenſion, but being engaged, it was neceſſary to go on. He had ſent out ſcouts, as I ſaid, and had ſcarcely gone two leagues on his way to them, but he ſaw the heads of two of them hanging upon a tree: this increaſed his fear, and he conſulted with thoſe with him, whether it would not be raſh to proceed. The young men were of opinion, that it would be a leſſening of their reputation to turn their backs to danger, though there came to them an Indian of their friends, and deſired them not to proceed, becauſe Caupolican was at Tucapel with twenty thouſand Indians, and that the hazard they ran was manifeſt; but he followed on his way, and came within ſight of the enemy: they ſoon engaged, and the battle was cruel on both ſides, ſo that for a great while no advantage could be perceived, becauſe the brave actions on both ſides kept victory in ſuſpence.

After a good while of this contention, the Spaniards began to prevail, and to cry *Viva Eſpanna*, or Live Spain; with which, recovering new vigour, the Indians ſeemed to give way, when (as Arzilla, in his Araucana, ſays) the famous Lautaro, an Indian, who had been bred page to the governor Valdivia, having more regard to the love of his native country and his liberty, than for the education he received, and the fidelity he owed his maſter, went over to the Indians, and ſpoke to them in this manner:— "What is this, brave Araucanos? Do you turn your backs when your liberty is concerned, your country, your liberty, your poſterity? Either recover your liberty, or loſe your lives; for it is a leſs misfortune to die, than to live ſlaves. Do you intend to ſtain the glory of your anceſtors, acquired for ſo many ages paſt, in one hour? Remember you are deſcended from thoſe who gained that renown by reſiſting their enemies, and not flying from them; and ſuch as feared not to loſe both lives and fortunes to preſerve their fame: drive away all fear, generous ſoldiers, and either live free, or die." With theſe words he ſo inflamed the minds of his friends, that, deſpiſing death, they returned with fury to invade thoſe whom before they flew from. Lautaro, to encourage them the more, led them on, ſhaking his lance againſt the governor, his maſter; who, ſurpriſed at his action, cried, "Traitor, what doſt thou do?" To which he anſwered only with a thruſt or two, animating his people to do the ſame. This renewed the fight, and they all reſolved, by the example and exhortations of Lautaro, to conquer, or die; which they performed with ſo much fury, that the concern of both ſides was now at the higheſt, and the contention only who ſhould venture fartheſt into danger. Many Spaniards and Indians fell on both ſides, and Lautaro ſtill encouraged his countrymen without any relenting. Valdivia did the ſame by the Spaniards, and ſhewed himſelf every where, in the greateſt danger, without the leaſt apprehenſion, though he ſaw many of the braveſt of his men fall by the ſword. One would have thought the Indians had but juſt begun to engage, to ſee how like lions they fell on, and begun to find victory incline to their ſide, till at laſt there fell ſo many Spaniards, that Valdivia was almoſt

left

left alone. In this extremity, he went aſide with his chaplain to confeſs his ſins, that being the principal thing he had now to do. The Indians gave him but little time to make his peace with heaven; for a great troop of them fell upon him with darts and lances, killing the chaplain, and, taking him priſoner, they brought him alive to their general, for the laſt triumph of their victory.

This hitherto unconquered captain appeared in the preſence of the great Caupolican, his hands tied behind him as captive, his face all bloody, though venerable. He aſked his life as a favour; he who a little before had it in his power to grant it his enemies. He turned his eyes towards his Lautaro, and, with their language, ſeemed to deſire him to intercede for him who had been his lord and maſter, and by whoſe means he was in this extremity. He promiſed Caupolican, if he might have his life, to withdraw all his forces, and leave the country free from their incumbrance. He made oath of this ſeveral times, and perſuaded with ſo much eloquence his hearers, that Caupolican, who was as generous as brave, began to relent, and incline to compaſſion. But the greateſt part ſaid it was madneſs to truſt to any words or promiſes of a captive, who was forced to humble himſelf; but that when he ſhould be free, he would do that which ſhould be moſt for his advantage. However, the diſpute between them increaſed, and no doubt but Lautaro would have inclined to mercy; for if he fought againſt his maſter, it was not out of any hatred to his perſon, but out of the great kindneſs he had to his country, which, with the deſire of liberty, prevailed over the gratitude he owed for the good uſage he had received at his hands; but nothing of this was able to appeaſe the vulgar, though Caupolican was inclined to clemency; ſo they forced him to pronounce his death, and to execute it immediately in hot blood, though they differed in the manner of it; for ſome ſay that they poured melted gold into his mouth, bidding him once for all content his thirſt for that metal which he had ſo inſatiably coveted: others ſay, that one of thoſe Caciques, bearing impatiently that it ſhould bear a queſtion whether he ſhould live or die, gave him a blow on the head with a club; which Caupolican reſented highly, as a want of reſpect to him. That which I find moſt probable is, that according to the cuſtom of the Indians, they made flutes and trumpets of the bones of his legs and thighs, and kept his head as a teſtimony of ſo remarakble a victory, and to animate their youth to undertake the like actions, as they might ſee by this their fathers had done. Thus I have heard it related.

Of all the Spaniſh army, it is ſaid there eſcaped only two Indian friends, who, taking advantage of the obſcurity of the night, hid themſelves in a thicket, from whence creeping out as well as they could, they came to the Conception, and brought the news of this fatal event. The city was immediately full of confuſion and complaints, the women crying and bewailing the loſs of their huſbands and ſons, others that of their fathers and relations, and altogether the common calamity of their city, in which they were all equally concerned.

CHAP. XVI. — *What happened after the Death of the Governor Pedro Valdivia.*

THE enemy having obtained ſo remarkable a victory, their general Caupolican commanded the retreat to be ſounded, and called a council, to conſider whether, or no, it would be beſt to follow their blow warmly. Many were of opinion it would be moſt expedient to fall upon the cities immediately, before they could prepare for them; yet Caupolican, after having heard them all, reſolved to do otherwiſe. It is better, ſaid

he, to expect our enemies in our own homes, than to go to ſeek them at theirs, where all men fight with more valour; let them come to ſeek us in our mountains and bogs, where we are ſure of a ſafe retreat: let us give our enemies a free acceſs to us, who have our ſituation to befriend us; and, in the meantime, our horſes and ſoldiers may refreſh themſelves: and if they out of fear (which I believe they will not) do forbear to ſeek us out, we may attack them when we will. Having ſpoke thus, he took Lautaro by the hand, and having publicly commended him, by attributing to him the victory and the liberty of his country, he, by conſent of all, made him his lieutenant-general, and gave him leave to chuſe out the men he would have to ſerve under him, to go and pitch upon a fit poſt to expect the Spaniards in. Lautaro was no very tall man, but well ſet, and ſtrong, induſtrious, cautious, of good counſel, gentle, and well-proportioned, very brave, as we have ſeen, and ſhall ſee hereafter.

To celebrate this victory, the Indians ſolemnized public games of wreſtling, running, leaping, and other proofs of their ſtrength and dexterity: they made alſo great feaſting with dancings, and for ſeveral days did nothing but rejoice and be merry; but ſtill without forgetting to be upon their guard, as men that expected their enemies whom they preſumed deſirous of revenge.

Franciſco de Villagran was lieutenant-general to Valdivia when he was killed; who remaining chief in command, aſſembled all he could to go and take vengeance of the enemy for this defeat. Setting out, he came as far as Arauco; and being come to a high mountain in the way, he found Lautaro on the top of it, with ten thouſand men, without having ſent out any to diſturb the Spaniards' march; for he had left all the paſſes eaſy, to oblige them to come to that place: it was not far from the ſea, which waſhed the foot of the mountain on one ſide; the coming up on the other ſide was eaſy; all the reſt was precipice; but the top was a plain fit to draw up in, and very proper for his deſign.

The Spaniſh general being in preſence, the armies began to draw up on both ſides; and, not to make the Indians too preſumptuous, he ordered three troops of horſe to begin the charge, in hopes to draw the Indians from their poſt, but in vain; for though they made three attacks, yet Lautaro would not ſtir, but received them with ſhowers of arrows, ſtones, and darts, which made them retire faſter than they came on. Our people, who could not break this battalion, with the evident danger of falling into precipices, did what they could, but with little effect, only tiring their horſes; for the enemy kept his poſt, not a man of them ſtirring out of his rank; only Lautaro would permit ſome of the braveſt to go out, and defy the Spaniards body to body. There came forth, among the reſt, a brave youth, called Curioman, who taking a long career, would throw his lance with that dexterity, that he wounded many of the Spaniards: he did this ſeven times, and, at the eighth, Villagran, being vexed at his importunate boldneſs, commanded a famous ſoldier, called Diego Lano, to chaſtiſe the Indian's inſolence, which he did; and it was all his high courage and ſtrength could perform. The Spaniards ſeeing themſelves tired, and that all the movement of their horſe ſignified little, and that the Indians were taking the paſſes behind them, began to uſe their ſmall ſhot, which at firſt made a great ſlaughter among the Indians. Lautaro, to remedy this inconvenience, commanded Leucaton, one of his captains, to attack the Spaniards on the flank, and not to ſtop till he came up cloſe with their muſqueteers, that by this means mingling with them, they might avoid their ſmall ſhot, which, in that caſe, could not be of any uſe to the Spaniards, without wounding their own men too. This he obſerved, and they ever ſince have practiſed the ſame with good ſucceſs; and without this boldneſs, in which they always loſe ſome men, they would be much inferior to the

Spaniards, they having no fire-arms to uſe in the like manner: they ſhew in this their invincible courage, and undiſturbed bravery, by which they make to themſelves a defence of their own enemies; for being once mingled with them, they cannot offend them, without deſtroying, at the ſame time, their own people.

The fight on both ſides was bravely maintained, Lautaro relieving and encouraging his men, as Villagran did his, both of them doing the parts both of general and ſoldier, and expoſing themſelves to the greateſt danger. He that ſignalized his valour moſt on our ſide, was the famous Captain Pedro Olmos de Aquillera, killing with his own hand four of the chiefs of the Indians. Our army was encouraged with his valour, which he inherited from that noble family ſo ſpread in Andaluſia: he was ſeconded by the Bernales Pantoias, Alvarados, and many others, who performed wonders in this battle, which was long conteſted, very bloody, and in ſuſpenſe to the laſt. The enemy was much ſuperior in ſtrength to our forces, and, therefore, the victory began to incline to their ſide; for though Villagran the general, and ſome others, would rather have choſe to die there with honour, than turn their backs, yet the greateſt part judging that there was no honour loſt in a vigorous retreat, and that it would be raſhneſs to perſiſt in ſo deſperate a caſe, they began to retire, fighting and defending themſelves; but the enemy, elevated with this ſucceſs, followed cloſe, and having knocked Villagran off his horſe, they had made an end of him, if he had not valiantly defended himſelf till thirteen of his men came to his relief.

Theſe famous commanders did not obtain leſs glory in this retreat, than if they had gained a victory: for the enemy following them for ſix leagues together, being a hundred to one, and having ſeized upon moſt of the paſſes, and the numbers ſtill increaſing, yet the Spaniards made a noble defence, and killed many of them. Thoſe who eſcaped from this engagement, came with the ſad news of the ill ſucceſs to the city of the Conception, which ſet all the inhabitants in an uproar, mingled with lamentations and cries, every one being in ſome meaſure concerned in the calamity; for between Spaniards and friendly Indians, there died in this engagement two thouſand five hundred. One would have thought the day of judgment had been come, to ſee the confuſion that was in the city upon this news; one laments the death of his father, another of her huſband; ſome cry for their ſons, ſome for their brothers; the women wring their hands, pull off their hair, fill the air with lamentable cries; the children cling to their parents, aſking for their loſt fathers, which is more grievous to them than daggers. In the midſt of theſe horrors, night came on, in which no one could ſhut their eyes, for the memory of their misfortunes keeps the ſoul attentive, without any conſolation.

CHAP. XVII.—*Lautaro ſacks the City of the Conception; and Caupolican beſieges the City of the Imperial, which is defended by the Queen of Heaven.*

MISFORTUNES ſeldom come alone; and ſo it happened to this afflicted city, which, inſtead of receiving comfort from the approaching day, no ſooner did it appear, when the noiſe of drums and trumpets gave a warm alarm of the enemies being at hand. Here the confuſion increaſed; for now the concern was not for the loſs of others, but for every one's own ſafety, the danger was threatening them ſo immediately: there was nothing but diſorder, no counſel nor reſolution being to be found in the wiſeſt: they could not defend themſelves, becauſe they were ſo overpowered in numbers by the enemy; and the retreat, though neceſſary, was difficult, becauſe of the approach of

the Indians. In this hard conflict, at laſt the reſolution that prevailed was to abandon the city, without pretending to ſave any thing but their lives. They leave the city then, and all the gold they had got together in ſuch quantities. They go out in long files, the mothers helping their little children along: the way that they undertook, was to the city of St. Jago, a long one, in which many rivers were to be croſſed, and hard paſſes to be gone through: this labour was accompanied with the perpetual fright of the enemies' purſuing them. Who can relate the hardſhips of hunger and other ſufferings, through ſo long a tract of mountains, deſarts, and uninhabited countries? How the women, the children, the old men, could bear this fatigue, we muſt leave to imagination to repreſent the true idea of theſe misfortunes! Let us therefore return to the Indians. The Spaniards had hardly made an end of abandoning the city, when the Indians entered into it; and not being able to execute their rage upon the inhabitants, they did it upon the houſes, to which they ſet fire, and conſumed them to the very foundation, killing even the very animals which the Spaniards left behind them. Thus was loſt the city moſt abounding in gold, and ſituated in the moſt populous part of the Indian country; for it is ſaid there were not leſs than a hundred thouſand Indians, with their families, who were all employed in gathering gold for the Spaniards, whom they enriched to that degree, that Pedro de Valdivia, if he had lived, would have had fifty thouſand crowns of gold a-year, and others twenty and thirty thouſand.

This burning of the city being over, news was brought, that Caupolican had called a great aſſembly in Arauco, which made Lautaro return with his people to be at it. When the two generals of the Araucanos met, they greeted one another for the victories obtained over the Spaniards; and, in ſign of triumph, one hundred and thirty Caciques, all dreſſed themſelves in the Spaniſh dreſs, with the cloths they took from the Spaniards killed in the battle. The general had Valdivia's cloths, which were, as it is reported, of green velvet, laced with gold lace, a back and breaſt of well-tempered ſteel, and a helmet with a great emerald for creſt. All having ſeated themſelves in order by the general's command, he propoſed to them the deſign of conquering back all that was gained from them by the Spaniards, who now were ſo dejected with their loſs. They all agreed to his deſire, every one delivering his opinion with great pride and arrogance. It is ſaid, that the old and prudent Colocolo, hearing them deliver their opinions with ſo much inſolence and preſumption, that it looked as if all the world was too weak to reſiſt their valour, humbled them a little, by putting them in mind, that if they had obtained two victories, the Spaniards had gained many more over them, and had made them ſerve as ſlaves; therefore, that they ought to behave themſelves with moderation and temper, that they might expect ſucceſs from their arms; and added, that it was his opinion, that they ſhould divide their forces into three parts, and, at the ſame time, aſſault the city of the Imperial.

Puchecalco, a famous conjuring Cacique, following the ſame thought of humbling the intolerable haughtineſs of the aſſembly, told them, that they might give over their preſumption, for he was to acquaint them, that, having conſulted his oracles, they had anſwered him, "that though at preſent they were ſo victorious, yet at laſt they were to live under the Spaniſh yoke in perpetual ſlavery." The Cacique Tucapel could not bear to hear this; and riſing from his place, with his mace of arms gave him ſuch a blow as took away his life. The general was highly offended at this inſolence, and, being reſolved to chaſtiſe the author of it, the whole aſſembly was diſturbed; and though they all endeavoured to lay hold on the murderer, yet he defended himſelf ſo well with his mace of arms, that it was not eaſy to ſeize him: but Lautaro, who had

great power with the general, made up the whole buſineſs; and the reſult of the council being to beſiege the city of the Imperial, they immediately put it in execution.

Their army took its poſt three leagues from the Imperial; which city, though it had a good garriſon of brave men, was not nevertheleſs prepared nor provided for a ſiege with ammunition and victuals, becauſe the enemies would have taken it, if any had been ſent to it; but the Queen of Heaven delivered them from this great danger. The enemies drawing near the city, there aroſe on a ſudden a mighty ſtorm of hail and rain, with black clouds; and their Epunamon appeared to them in the form of a terrible dragon, caſting out fire at his mouth, and his tail curled up, bidding them make haſte, for the city was theirs, being unprovided: and that they ſhould enter it, and put to the ſword all the chriſtians, and ſo diſappeared: but as they were purſuing their deſign, animated by this oracle, on a ſudden the heavens cleared up, and a very beautiful woman appeared upon a bright cloud, and ſhewing them a charming, but majeſtic and ſevere countenance, took from them the pride and haughtineſs inſpired into them by their firſt viſion, commanding them to return to their own homes, for God was reſolved to favour the chriſtians; and they obeyed immediately. To which the author who reports this ſtory adds, that the whole camp ſaw the apparition, which was on the 23d of April, and that all agree in this.

CHAP. XIX. — *The City of the Conception is rebuilt; and Lautaro having taken it a ſecond Time, marches to take the City of St. Jago, where he dies.*

THE Spaniards being in ſafety, began to think of returning to the Conception, and rebuilding of it. To this end they raiſed men at St. Jago, and with great difficulty compaſſed their intention, making a good fortreſs within the city for their better ſecurity. The Indians of the neighbourhood, though they were in their hearts as averſe as any others to be commanded by ſtrangers, and to let them build cities in their territories, diſſembled nevertheleſs at preſent, but in due time gave advice to Arauco, deſiring help to drive out theſe new comers, or make an end of them at once. Lautaro came to them preſently with a good army; and ſome companies of Spaniards, which went out to encounter him, were forced to retire to the fort they had made, in which they defended themſelves as long as they were able to withſtand the force of Lautaro; but at laſt being overpowered, they were forced to retire a ſecond time to the city of St. Jago. Many Spaniards were loſt, and Lautaro followed the purſuit, in which many brave actions were performed on both ſides: among the reſt, a famous Indian captain, called Rengo, following three Spaniſh captains who were retiring, called them cowards, and ſaid a hundred inſolent things to them, which moved one of them to attack him at the paſſage of a river; but he ſecured himſelf by chooſing a ſtrong poſt; ſo the Spaniards went on to St. Jago, and Lautaro retreated to Arauco, where great rejoicings were made for this new victory.

The Indians renewed their meetings; and being much elevated with their ſucceſs, they came to a reſolution of not troubling themſelves with the leſſer cities, which they reckoned as their own; but to attack the capital of St. Jago. Lautaro offered to undertake this enterprize; and chuſing the moſt warlike among them, he marched with a powerful army. He paſſed the rivers Biobio, Itata, Maule, and Mataquito; near this laſt he raiſed a fort to ſecure his retreat, if need were, he being engaged far from his own territories.

When the news of this reſolution came to St. Jago, many looked upon it as a fable, not being capable of imagining that the Indians had boldneſs enough to march ſo far to attack them; but thoſe who were come back from the city of the Conception undeceived them, as knowing by experience Lautaro's courage; they therefore fortified the place, and provided it: they alſo ſent out parties to engage the enemies, if the occaſion offered: but Lautaro forced them to return in haſte to carry the news, and yet ſome remained behind too.

Franciſco de Villagran, the lieutenant-general, was ſick at this time; and ſo ſent his couſin Pedro de Villagran, with all the force he could make, to meet Lautaro; they lodged within half an hour from the fort which the Indians had raiſed upon the Rio Claro; the next day they entered the fort without any reſiſtance; for Lautaro had cunningly ordered his men to ſeem to fly, that he might catch the Spaniards in the fort; and ſo, when he ſaw his time, he gave the ſignal, and his men fell on the Spaniards like lions, who had enough to do to make their retreat, and eſcape from their hands. The Indians followed them for a league, doing them much miſchief, though they defended themſelves with great valour. Lautaro feigned a ſecond time to fly; and our people being reinforced, engaged him a-freſh. They attacked his fort, and gave three aſſaults to it; where they were received with ſhowers of arrows, darts, and ſtones, and at laſt forced to retire to a valley; whence they deſigned to return, and try their fortune again: but Lautaro ſaved them the trouble; for reſolving to make an end of them all at once, and in order to it feigning that he wanted proviſions, he ſent to our camp to demand ſome. His project was to let in a river upon the Spaniard's camp, which he could do conveniently, becauſe it was already in dams and canals; and ſo having made a marſh of the ground where they lodged, ſo as they ſhould not be able to ſtir, ſeize all the paſſes behind them. But Villagran having diſcovered this ſtratagem, raiſed his camp, and retired to St. Jago, to the great diſappointment of the enemy.

Yet this did not make Lautaro give over his deſign; for conſidering that he could not attack St. Jago, which was well provided with men and ammunition, except he had a greater ſtrength, he raiſed a fort in a valley to cover himſelf, while his ſuccours ſhould arrive, and enable him to attack St. Jago. Thoſe of the city were making, with great care, preparations for their defence; and had ſent for ſuccours to all the other cities. Their general Villagran had ſent out upon this deſign; and making as if he was going to Arauco, had on a ſudden marched to the Imperial, from whence he brought many good men away with him; and while Lautaro was raiſing his fort, Villagran, guided by an Indian, came ſwiftly and ſilently upon Lautaro, and attacked his fort. In the firſt aſſault that was given, Lautaro himſelf fell, wounded by an arrow which ſtruck him to the heart; thus ended that valiant captain of the Araucanos. His ſoldiers were not at all diſcouraged with this misfortune of their general; but rather enraged with ſuch a loſs, and a deſire to revenge his death, they fell like lions upon the Spaniards, taking no quarter at their hands. There were on both ſides great actions performed; but the reſolution of the Indians was the nobleſt in the world, preferring their glory to their lives, which they huſbanded ſo little, that though they were broke, and but few left in a fighting condition, yet they ran upon the Spaniards' lances, and with their hands pulled them into their bodies, to come cloſe to their enemy, and revenge their death with his, or at leaſt die in the attempt.

CHAP

CHAP. XXII. — *Don Garcia Hurtado de Mendoça comes to the Government of Chile; — what happened at his Arrival, and in the Engagement he had with the Araucanos.*

AFTER the death of Pedro de Valdivia, there was application made from Chile to the viceroy of Peru, who is to provide a governor till the king can ſend one, that is, both preſident and governor independent of Peru. The viceroy at this time was Don Antonio Hurtado de Mendoça, marquis of Canete, who governed with great zeal and a prudent ſeverity, making exemplary puniſhments where they were neceſſary, by which he ſecured the country. He had then with him his ſon Don Garcia Hurtado de Mendoça, who afterwards ſucceeded him in his viceroyſhip, with as much applauſe and eſteem of the world. The embaſſadors from Chile deſired him of his excellency the father for their governor, which he granted. King Philip the ſecond had appointed the Adelantado Hyeronimo de Alderete, to ſucceed the governor Pedro de Valdivia, whoſe death was known at court; but the news came likewiſe that Alderete was dead at the iſland of Taboga near Panama. The viceroy's ſon having raiſed a good body of horſe, ſent ſome of them by land with the horſes, and he embarked with the reſt; and after a hard ſtorm, in which they had like to have been all loſt, he arrived in the bay of the city of the Conception, and landed upon the iſland of Quiriquina, to inform himſelf from thence of the ſtate of the country. The people of the iſland, who were fierce and warlike, took arms when they ſaw the ſhips draw near the harbour, and pretended to hinder the Spaniards from landing; but having no fire-arms, as ſoon as the cannons of the ſhip began to fire, they gave way. As ſoon as the governor landed he publiſhed the deſign of his coming, that the Indians might know it: which was, to ſave their ſouls by the predication of the goſpel, and reconcile them to God by the means of baptiſm; and to confer that ſacrament, he had with him religious men of the famous orders of St. Francis and Mercede: that if they would ſubmit to that, he would treat with them in the name of the emperor Charles V. This declaration reached the ears of the Araucanos: and there aſſembled at Arauco ſixteen caciques, and many other captains, to treat about what was beſt for them to do in this caſe; and though many youthful and arrogant ſpeeches were made, according to their uſual haughtineſs, which made them deſpiſe all good counſel and peace, yet the old and prudent Colocolo reſtrained their pride with prudent reaſons, and perſuaded them to treat with the Spaniards, ſince they were by them invited to do it. "It cannot hurt us," ſaid he, "to hear them; we ſhall have our forces as ſtrong ſtill to maintain our right, if they demand unjuſt things." This opinion was followed by the moſt prudent among them; and they ſent for their ambaſſador the Cacique Milalan, a man of great rhetoric and eloquence among them, giving him order to treat with the Spaniards, and obſerve well their ſtrength; and that he ſhould ſhow inclinations to peace, to draw them to land on the continent, and forſake the iſland, hoping that the deſire of gold would tempt them to go further into the country. Milalan came to the governor's tent; and making a ſmall but civil bow, ſaluted him, and the other Spaniards that were with him; then with a chearful countenance he delivered his meſſuage. He ſaid, "that his countrymen admitted the terms of peace that were propoſed, and ſhould obſerve thoſe of friendſhip; not out of any terror or apprehenſion cauſed in them by the arrival of theſe new forces: for no power was great enough to terrify them, having ſufficiently experienced their ſtrength in the ſucceſs they had hitherto had: but that which moved them was the compaſſion they had for ſo many innocent people, ſo many women and chil-

children, who, upon occaſion of this war, remained widows and orphans: that upon fair terms they would own the King of Spain, upon condition that he did not concern himſelf any ways with their liberty or rights; that if they had any thought of acting by violence, and making them ſlaves, they would ſooner eat their own children, and kill themſelves, than ſuffer it."

The governor anſwered him with all aſſurance of as good treatment as they expected; and having made him ſome preſents, diſpatched him back to give an account of his embaſſy: but this was not ſufficient ſecurity for either ſide; ſo they remained upon their guard. The Indians obſerving the caution of the Spaniards, to give them more ſecurity, feigned to diſmiſs their forces, but ſecretly gave them orders to ſtand upon their guard, and not lay down their arms, but be ready upon any occaſion that might happen; yet the Spaniards for all this did not think fit to land upon the continent, but ſtayed two months upon the iſland where they firſt landed, till the winter was entirely over. About the ſpring, they ſet on ſhore about one hundred and thirty men of the braveſt among them, to raiſe a fort, as they did, upon the top of an hill which overlooks the city of Penco (otherwiſe called the city of the Conception). Under the protection of this fortreſs, the reſt of the Spaniards went out of the iſland, hoping that in a little time, their horſes, which were coming by land, would arrive, having ſome news of them; in the mean time they cut wood and faſcines to fortify their camp, the governor and the commanders ſhewing an example to the reſt in the labour of intrenching themſelves, and cutting of wood, as if they had never done any thing elſe all their life-time. They brought it to perfection in a little time, and planted upon it eight field-pieces, with all other neceſſary proviſions for their defence.

The Araucanos, who were watching their motions, no ſooner ſaw them buſy in their fort, but, without expecting any further proof of their intentions, which they took to be for war, called immediately an aſſembly, and with all their ſtrength came like lions, with a reſolution to demoliſh the new fort. They took up their poſt at Talcaguano, about two miles from the Spaniards' fort, and about break of day they gave an alarm, and having firſt challenged out many Spaniards to ſingle combat, they at laſt fell on in a body, with no more fear of the cannon-bullets than if they had been of cotton or wool, knowing, that though they received at firſt ſome damage, it could laſt no longer than till the battalions were engaged. With this reſolution they fell on like lions, and ſome of them got over the fortifications; amongſt whom was Tucapel, who did wonderful actions. Neither were the Spaniards unprepared for them, doing extraordinary things, which it were too long to deſcribe in particular, though the actions were ſuch as very well deſerve it.

The Spaniards who were in the iſland and aboard the ſhips, hearing of the danger of their companions, came to their aſſiſtance, and by the help of God, who aided them, joined their friends: and then thus united they began to prevail over the Araucanos, who, finding themſelves inferior, and having loſt many of their braveſt men, began to retreat, all but Tucapel, who having ſtayed laſt, and being ſorely wounded, yet made his eſcape from the Spaniards, whom he left full of admiration of his valour and reſolution.

About this time the horſes which came from St. Jago arrived, and with them a troop of good horſemen from the Imperial. The enemies muſtered all their forces, and the Spaniards went to ſeek them in the valley of Arauco, where they had another very bloody engagement: the Araucanos fled, or rather retired; and the Spaniards having taken one priſoner called Cualbarino, they, in order to terrify the reſt, cut off both his hands; but the Araucanos were ſo far from being terrified by it, that this enraged

enraged them the more; for Gualbarino himſelf being returned to his countrymen, went up and down, begging them to revenge the injury done to him, which they all looked upon as their own. Caupolican their general ſent to challenge the governor Don Garcia with all his ſtrength, telling him, that he would ſtay for him in his camp, which he moved near the Spaniſh camp, which was at Millarapue. He came over night; and the next day preſented them battle; which was as well diſputed as the reſt, both ſides fighting with extreme valour. The Indians preſſed the Spaniards ſo hard, that victory had declared for them, had not a Spaniſh battalion, in which alone remained all the Spaniards' hopes, charged ſo deſperately among the Indians, that they were forced to retire, and leave the field to the Spaniards; but their retreat was with great honour and reputation. It is related, that in this engagement ſome of the neighbouring Indians were made priſoners: and that though they were put to a moſt exquiſite torture, to force them to reveal ſomething that the Spaniards wanted to know, yet they remained conſtant and true to their country, as if they had been inſenſible of pain. The Spaniards had here a conſiderable advantage; for, beſides many dead enemies whom they left upon the ſpot, they took twelve priſoners of the chief among the Indians, whom they hanged upon ſo many trees for an example to the reſt; and among them that fame Gualbarino; who not only ſhewed in dying an intrepid mind, but encouraged the others: and among the reſt a Cacique, who began to fear and beg his life; to whom Gualbarino ſpoke before all with ſo much haughtineſs, taxing his baſe cowardice as if he had been the conqueror, and not the conquered, which ſtruck the Spaniards with ſuch admiration, that they were beſide themſelves.

From this place our camp marched to the valley where Valdivia was loſt. Here the Spaniards raiſed a good fort; from whence they made their excurſions upon the enemy, endeavouring to advance their conqueſts, but not without danger of being often cut off; particularly the hazard they ran at a narrow paſs, cauſed by the mountains on the way to Puren, where they were attacked by the Indians, and very hard ſet by them, whom they might have deſtroyed if they had not fallen to plunder the baggage; for a company of Spaniards obſerving this miſcarriage, ſeized on a ſpot on the top of a hill, from whence with their ſmall ſhot they ſo galled the Indians below, that they fled in confuſion to avoid ſuch a tempeſt, leaving the Spaniards maſters of the field, but much weakened: having been ſorely handled in this rencounter, they retired to their camp, where they were received with great demonſtration of joy. After this, leaving a good garriſon in the fort, well provided for two months, the governor went to viſit the other cities, to ſtrengthen them, and provide them with neceſſaries againſt all attacks, which they had reaſon to fear; for Caupolican, enraged that in three months he had loſt three victories, had called a general aſſembly; where it was reſolved never to give over, but either die or conquer, that they might drive out the Spaniards, and reſtore their country to its liberty.

CHAP. XXIII. — *More Events of War. — The Death and Converſion of Caupolican.*

CAUPOLICAN followed his deſigns, but fortune ſeemed to be weary of aſſiſting him; for in moſt rencounters he came off either worſted, or entirely defeated, and the victory ſnatched out of his hands when he thought himſelf ſure of it: this made his people begin to grow weary of his command; and the vulgar began to cenſure his conduct as too remiſs, and that the deſire of preſerving his power, and being general, made him neglect opportunities of putting an end to the war.

Cau-

Caupolican being informed of theſe ſuſpicions of his own people, called a new aſſembly, in which he propoſed methods of carrying on the war, ſo as they might obtain an entire liberty. This was unanimouſly agreed to, with a firm reſolution of not giving it over till they either conquered or died. This reſolution coming to the knowledge of the governor Don Garcia Hurtado de Mendoça, who was gone, as we have ſeen to the city of the Imperial, to fortify it, he diſpatched to the fort advice of what paſſed, and ſent them a competent relief.

Amongſt other deſigns pitched upon by Caupolican, the firſt was to ſurprize the Spaniards in their fortreſs by a ſtratagem before they were aware of him, and ſo maſter the place. The other captains of repute, Rengo, Orompello, and Tucapel, who were uſed to lead always the van-guard, did not approve of his project; and ſo let him go by himſelf with his own forces, they ſcorning, as they ſaid, to obtain a victory by fraud or ſurprize. Caupolican ſet out then by himſelf; and being come within three leagues of the Spaniſh fortreſs, he ſent out his ſpies to obſerve their diſpoſition, and how they might be moſt eaſily circumvented. He choſe for this purpoſe one of his beſt captains, whoſe name was Pran, a cunning ſagacious man, and prudent, with a great deal of ready wit. This captain diſguiſed himſelf; and putting on the habit of an ordinary Indian, he went alone, and without arms, as a private perſon, to the fortreſs of the Spaniards. He entered the fort without ſuſpicion, or being known by the other friendly Indians, with whom he ſoon grew acquainted; and walking up and down, he obſerved our camp and forces, and took particular notice of the time of day that our men uſed to be leaſt upon their guard, which was generally at noon, when they went to ſleep, to repair their ſtrength, which was waſted by their night-watches.

There was in the Spaniſh fort a young Indian, (not like Lautaro, in whom the love of his country prevailed over his duty to his maſter,) but of another temper; his name was Andres, ſervant to a Spaniſh gentleman, and very much inclined to all the Spaniſh nation. Pran had made a great friendſhip with this young man; and one day, as they were going together in the fields to ſeek out ſome proviſion, as they uſed to do, talking from one thing to another, Pran diſcovered himſelf entirely to his friend Andres; perſuading him to help on the deſign he came about, ſince upon its ſucceſs the liberty of the whole nation depended. Andres, who was not leſs ſagacious and prudent than Pran, promiſed him all he could deſire: but diſſembled all the while. This being ſettled, they agreed, that each of them ſhould return home to his camp, and that the next day Andres ſhould come to a certain poſt they agreed on, and there Pran ſhould meet him, and carry him to Caupolican's quarters, where he might ſettle all matters with him. Pran went back to the Indians' camp, overjoyed that he had ſucceeded ſo well, as he thought: he gave a particular account of all the buſineſs to Caupolican, while Andres did the ſame to Captain Reynoſo, who commanded in the Spaniſh fort. If God Almighty had not by this way delivered the Spaniards out of this imminent danger, they muſt have periſhed; for naturally Andres ought to have been of the ſide of his own countrymen.

According to what had been agreed between them, Andres came the next day to the aſſignation, where he met with his friend Pran; and they went together to Caupolican, who received them with all demonſtrations of joy and confidence, ſhewing him his camp and all his army; the reſult was, that he ſhould aſſault the Spaniards the next day about noon. Andres went back to the Spaniards, to inform them of all that paſſed, and by that Captain Reynoſo knew how to diſpoſe every thing to receive the attack. Caupolican came at the time appointed with all his Indians, the greateſt part of which were

were ſuffered to enter, the Spaniards making as if they were aſleep; but on a ſudden, upon a ſign given, they roſe up like lions, and making a furious diſcharge on thoſe entered, the horſe ſallied to engage thoſe who had remained without, of whom they made a great ſlaughter. The ſurprize of the Indians was ſo great, that few of them could make their eſcape; but Caupolican, with ten more, ſaved himſelf by bye-paths, though he was hotly purſued; the Indians that were overtaken, ſtill denying they knew any thing of him, and neither threats nor gifts could oblige them to reveal what they might know before.

But it being very hard there ſhould not be one traitor among many loyal men, the Spaniards light at laſt upon one of his ſoldiers, who was diſcontented that he had not been advanced according to his pretenſions, who betrayed to them where he was: this man guided them by a ſecret path to a place where they could not be diſcovered, and from thence ſhewed them a very thick wood, about nine miles from Ongolmo, where in a thicket by a river ſide, over a precipice, this brave man had hid himſelf till he could get a new army, and rally his men.

The Spaniards came upon him on a ſudden, and ſurpriſed him with the few that were with him; and though he did all that was in his power to defend himſelf, yet they maſtered him. His wife ſeeing him a priſoner, and his hands tied behind him, called him coward, and uſed all the opprobrious language to him that was poſſible.

Caupolican was deſervedly among the Indians the moſt valued of their generals; and accordingly, in an aſſembly of ſixteen Caciques, all ſovereign lords, who met to raiſe an army againſt the Spaniards, he had the chief command given him. This was the man who, with fourſcore bold fellows, ſurpriſed the caſtle of Arauco, and overcame the Spaniards in a bloody encounter without the city walls: this was he who durſt expect the general Valdivia in open field, and routed him and his whole army, ſo as there was not one Spaniard left alive: this was he who deſtroyed Puren, and ſacked Penco, not leaving one ſtone upon another in it, the Spaniards having been all frighted away by the terror of his name: this, in fine, was the man who managed all the war with ſuch ſucceſs, by his military ſkill and valour, that his authority was every where reſpected. This great man was now, by the means of a traitor, delivered up to his moſt cruel enemies. In this calamity he ſhewed no baſeneſs; for though he begged his life, it was in a grave way, promiſing, in return, to cauſe all the country to ſubmit to the King of Spain, and to give way to introduce the Chriſtian religion. "Conſider," ſaid he to Captain Reynoſo, "that what I promiſe, I am able to perform, by the great veneration that all my people have for me; and if thou doſt not accept of this proffer, thou wilt do nothing; ſince for one head taken away, there will riſe up a hundred Caupolicans to revenge my death, that the true one will not be miſſed. I deſire not to be ſet at liberty, but to remain thy priſoner till I perform my promiſe."

All theſe reaſons were of no uſe to Caupolican, for he was publicly ſentenced to be empaled alive, and ſhot to death with arrows, for a terror to the reſt of the Indians; though, as time has ſince ſhewed, this had no other effect, than to light the fire of war more and more, and make the wound almoſt incurable. He heard this hard ſentence without any alteration in his countenance; but he deſired with great concern to be baptized. The prieſts are ſent for, and, after a ſhort inſtruction, he receives the holy ablution, and the character of a Chriſtian. After this, the ſentence was executed upon him, which he endured with great conſtancy.

The Concluſion.

THOUGH Father Ovalle has continued, in the remainder of his treatiſe, to give an account of the various events of the war with the Araucanos, in which narrative he runs through the commands and actions of all the governors of Chile, to the peace made with that nation; yet it being by him more a piece of courtſhip to his nation, and to thoſe families, than an information inſtructive to a foreign reader, it has been thought proper to take the death of that great general Caupolican for the firſt natural period of that war. In the courſe of the remaining narrative, there are ſo many ſuperſtitious notions inculcated, ſo many improbable miracles given for the foundation of great enterprizes, and ſuch a monkiſh ſpirit runs through the work, that here, in England, it would rather prejudice than recommend the impreſſion, and is therefore omitted.

ABRIDGED NARRATIVE OF TRAVELS

THROUGH THE

INTERIOR OF SOUTH AMERICA,

From the Shores of the PACIFIC OCEAN to the Coaſts of BRAZIL and GUYANA, deſcending the RIVER OF AMAZONS;

As read by MR. DE LA CONDAMINE, Member of the Academy of Sciences at Paris, at a Sitting of that Academy on the 28th April 1745.

AT the cloſe of March 1743, after a reſidence of ſix months in a deſert, at Tarqui, near Cuenca, in Peru, during which I had inceſſantly, night and day, to contend with an atmoſphere unfavourable to aſtronomy, I learnt from Mr. Bouguer, then near Quito, at the northern extremity of our meridian, that he had there made a ſeries of obſervations of a ſtar, intermediate between our two zeniths, of which obſervations many were effected on the ſame night: this ſtar had been obſerved by me at the ſouthern extremity of the line. By theſe ſimultaneous obſervations, on the importance of which I had laid much ſtreſs, we attained the ſingular advantage of being enabled to aſcertain preciſely, and beyond diſpute, the real amplitude of an arc of the meridian of three degrees, the meaſurement of which was known to us geometrically, and this without having any thing to apprehend from variations, whether of an optical or a real nature ariſing from the motion of the ſtar, on account of its poſition having been fixed at the ſame inſtant of time by the two obſervers at the oppoſite extremities of the arc. Mr. Bouguer, arriving in Europe ſome months before me, communicated the reſult at the laſt public meeting of the ſociety, a reſult correſponding with that of the operations at the polar circle *; as this, with that of the laſt effected in France †, all conſpiring to prove that the earth is a ſpheroid flattened towards the poles. Taking our departure in the month of April 1735, twelve months earlier than the academicians diſpatched to the north, we reached Europe, on our return, by ſeven years too late, to communicate any thing new reſpecting the figure of the earth. This ſubject, ſince then, has been treated by ſo many able hands, that I truſt for excuſe in referring to the memoirs of the academy the detail of my individual obſervations on the matter, renouncing the privilege, but too hardly earned, of addreſſing this aſſembly on that head.

Neither ſhall I enlarge here on other academical labours, either individually undertaken, or in common, during our voyage from Europe to America, at the different places of our ſojourn after arriving in the province of Quito, and during the frequent intervals occaſioned by obſtacles of every kind, which but too often delayed the progreſs of our operations. To dilate on theſe, irrelative as they were to the meaſurement of the earth, would require extracts from a number of memoirs, which in the ſpace of

* Effected by Meſſrs. Maupertuis, Clairaut, Camus, and Monnier, of the Royal Pariſian Academy, in conjunction with the Abbe Outhier, a correſpondent of that academy, and M. Celſius, aſtronomical profeſſor at Upſal.

† By Meſſrs. Caſſini de Thury and L'Abbe de la Caille.

ſeven or eight years have been forwarded to the academy, but of which ſome have not arrived in France, while many others have not hitherto appeared, nor even extracts of them, in our collections. I ſhall refrain therefore from ſpeaking now, of our aſtronomical or geometrical concluſions on the latitude and longitude of a great many places; of our obſervation of the two ſolſtices in December 1736, and in June 1737; of the obliquity of the ecleptic which they determine; of our experiments on the thermometer and barometer; on the declination and dipping of the needle, on the ſwiftneſs of ſound, on Newtonian attraction, on the length of the pendulum in the province of Quito, at different heights from the level of the ſea, and on the expanſion and condenſion of metals; I ſhall carefully abſtain from notice of the two journeys made by me, the one in 1736, from the coaſt of the South-Sea to Quito, aſcending the river of Emeralds; the other in 1737, from Quito to Lima.

Finally, I ſhall not advert here to the hiſtory of the two pyramids which I cauſed to be erected for the purpoſe of determining in perpetuity the two extremities of the fundamental baſe of all our meaſures, and of thus remedying thoſe inconveniences which were but too lamentably experienced in France, from want of a ſimilar precaution, when the baſe of M. Picard was to be verified. The inſcription propoſed to the Academy of Belles Lettres, before our departure and afterwards, with thoſe alterations which circumſtances of time and place required, placed on the pyramid, was denounced by the two lieutenants of the navy of the King of Spain, our coadjutors, as offenſive to His Catholic Majeſty, and the Spaniſh nation. I defended, for two years, a lawſuit inſtituted againſt myſelf perſonally on this ſcore, and at laſt gained it, though oppoſed by the parliament of Quito. What paſſed on this occaſion, and divers other intereſting events on our travels, which diſtance has much difigured, are better calculated to form an hiſtorical narrative than an academical memoir; in this I now preſent I ſhall confine myſelf to what relates to my return to Europe.

In order to multiply our opportunities of making obſervations, M. Godin, M. Bouguer, and myſelf, planned different routes for our return. For my part I reſolved on ſelecting one, almoſt unknown, and ſuch as I felt perſuaded no one would envy me, that of the river of Amazons, a river which croſſes the whole continent of South-America, from weſt to eaſt, and which juſtly paſſes for the largeſt in the world. I propoſed to render a voyage on this river of utility, by forming a chart of its courſe, and by remarks on ſuch objects as a country ſo little known might afford. Such as relate to the manners and ſingular cuſtoms of the nations which inhabit its banks, would doubtleſs be moſt gratifying to the majority of readers; but, in preſence of an aſſembly with whom phyſics and geometry are familiar, I deem it inadmiſſible I ſhould dilate on matters foreign to the object of its meeting: nevertheleſs, that I may be better comprehended, I cannot diſpenſe with giving ſome preliminary notion of the river in queſtion, and its firſt navigators.

It is commonly believed that the firſt European who diſcovered the river of Amazons, was Francis d' Orellana. He embarked in 1539 on the river Coca, in the vicinage of Quito, a river which ſomewhat below aſſumes the name of Napo; from this river, he deſcended into one of larger ſize; and, ſuffering his veſſel to be carried along conſtantly by the current, he arrived without any pilot at the North Cape, on the coaſt of Guyana, after a voyage, by eſtimation, of 1800 leagues. The ſame Orellana periſhed ten years afterwards, together with three veſſels entruſted to his command by Spain, without ever being able again to find the true mouth of the river. A rencounter which he ſtates to have had with certain armed women, againſt whom an Indian Cacique had previouſly warned him, occaſioned his naming this river, that of

the Amazons. Some writers call it Orellana, but previous to this denomination it was already known by that of Marañon from another Spaniſh captain. Geographers, who repreſent the Amazons and the Marañon as different rivers, following, as did Laet, the authority of Garcilaſo and Herrera, were undoubtedly ignorant, not only that the moſt antient Spaniſh authors* denominated the river we ſpeak of Marañon, as early as 1513, but alſo that Orellana himſelf in his narrative ſays, that he met with the Amazons on deſcending the Marañon, an identification which puts diſpute at reſt; in fact this name of Marañon has uninterruptedly been preſerved throughout its courſe, and from its very origin, in Upper Peru, by the Spaniards, during more than two centuries. Still, the Portugueſe, eſtabliſhed ſince the year 1616 at Para, an epiſcopal city at the moſt eaſtern mouth of this river, in this part know it by no other name than that of the Amazons, giving it the title of Solimoês on aſcending it higher up, and transferring the denomination Marañon, or as ſpelt in their language Maranhaõ, to a city and whole province, or captaincy, adjoining that of Para. I ſhall uſe indifferently the names Marañon and Amazons in ſpeaking of this river.

In 1568, Pedro de Urſoa, diſpatched by the viceroy of Peru in ſearch of the famous Gold Lake of Parima, and the town El Dorado, ſuppoſed to exiſt in the vicinity of the Amazons river, fell into this river from one flowing into it on the ſouthern ſide, one of which I ſhall ſpeak in its place. The fate of Urſoa was ſtill more tragical than that of his predeceſſor Orellana. Urſoa periſhed by the hands of Aguiré, a private ſoldier, who rebelled and declared himſelf king. This man afterwards deſcended the river by a long route, which to this day is not clearly known, marking his courſe by pillage and murder, and terminating his career by being flayed alive in the iſland of Trinidad.

Voyages like theſe afforded no great information reſpecting the courſe of the river; other governors, in after-time, repeated attempts for this purpoſe, but with as little ſucceſs. The Portugueſe were more fortunate than the Spaniards.

Pedro Texeira, in 1638, a century after Orellana, placed by the governor of Para at the head of a numerous detachment of Portugueſe and Indians, aſcended the Amazons river to where it receives the Napo, and afterwards proceeded up that river itſelf to the neighbourhood of Quito, whither he repaired by land, accompanied by ſome of the Portugueſe under his orders. He met with a favourable reception from the Spaniards, the two nations at that juncture being ſubject to one lord. The next year he returned, by the ſame channel, to Para, in company with Father Acuña, and Father Artieda, appointed to render account of the particulars of the voyage to the court of Madrid. They eſtimated their courſe from the hamlet of Napo, the ſpot at which they embarked, to Para, at 1356 Spaniſh leagues†. The narrative of this voyage was printed at Madrid in 1640. The French tranſlation effected in 1682 by M. de Gomberville is in the hands of every one.

The very defective chart of the courſe of this river, publiſhed by Sanſon from this purely hiſtorical narrative, was afterwards, for want of new memoirs, copied by all ſucceeding geographers, none more correct appearing in France before the year 1717.

At this time, in the twelfth volume of *Lettres edifiantes*, &c. was firſt publiſhed a copy of the chart engraved at Quito in 1707, but planned as early as 1690 by Father Fritz, a German Jeſuit miſſionary on the banks of the Marañon, the courſe of which river he had traced throughout its whole length. From this chart was diſcovered that

* Pedro Martyr, Fernan de Enciſo, Fernandez de Oviedo, Pedro Ciega, Auguſtin Larate.

† At 15 to the degree, 6255 Britiſh ſtatute miles.

the

the Napo, eſteemed the main ſource of the river, was merely tributary, and that the Amazons itſelf, under the denomination of Marañon, iſſued from a lake near Guanuco, thirty leagues from Lima. But Father Fritz, deſtitute of pendulum or teleſcope, was enabled to determine no one longitudinal point, and for aſcertaining the latitudes he had merely a ſmall wooden ſemicircle of three inches radius; he was moreover ill, as he fell down the river near Para. One need only read his manuſcript journal, of which I have a copy taken from the original in the archives of the college of Quito, to ſee that numerous obſtacles, both at that time and on return to his ſtation, prevented his making thoſe obſervations requiſite for rendering his chart exact, eſpecially towards the lower part of the river. This chart is merely accompanied by a few notes on the map itſelf, without any hiſtorical detail, ſo that, in fact, to this time Europe remains, with reſpect to the countries through which the river of Amazons takes its courſe, as deſtitute of information as it was left a century ago, after the narrative of Father Acuña *.

The Marañon iſſuing from its parent lake, in 11° of latitude ſouth, directs its courſe northward to Juan de Bracomoros, through a ſpace of ſix degrees: thence it bends eaſtward, in a line nearly parallel to the equator, to the North Cape, diſemboguing its waters into the ocean under the line itſelf, after traverſing from Taen, where it begins to be navigable, nearly thirty degrees of longitude or 750 common leagues; or, computing its windings, from 1000 to 1100 leagues †. From the north, as well as from the ſouth, it receives a prodigious number of rivers, many flowing through an extent of five or ſix hundred leagues, and ſeveral of them equalling in volume the Danube or the Nile. The banks of the Marañon, more than a century back, were peopled with a great variety of nations, who withdrew to the interior at ſight of Europeans. In the preſent day merely a few aſſemblages of natives are to be ſeen themſelves, or their immediate predeceſſors, recently drawn from their native woods by the Spaniſh miſſionaries in the upper portion, and by thoſe of Portugal, in the lower diviſion of the river.

Three roads communicate between the province of Quito and that of Maynas, which gives its diſtinction to the Spaniſh miſſions on the Marañon. Theſe roads traverſe that famous chain of ſnow-capped mountains termed Las Cordilleras de los Andes. The firſt of theſe roads, almoſt immediately under the line, eaſtward of Quito, leads by Archidona to the Napo: this was the road traced by Texeira on his return from Quito, and by Father Acuña. The ſecond road is through a gorge below the Volcano of Tonguragua in 1½° of latitude ſouth: it leads to the diſtrict of Canelos acroſs numerous torrents, the junction of which forms the river Paſtaça, a river that falls into the Marañon one hundred and fifty leagues higher up than the Napo. Theſe two roads are thoſe commonly travelled by the miſſionaries of Quito, the only Europeans by whom theſe countries are frequented; for the communication between them and the neighbouring province of Quito is rendered almoſt impracticable by the Cordilleras, which are paſſable but for a few months in the year. The third road is by Juan de Bracomoros in 5½° of latitude ſouth, where the Marañon begins to be navigable for boats. This laſt is the only road by which beaſts of burthen can travel to the place of embarkation. The two preceding require a march of many days on foot, and on theſe every thing muſt be carried by Indians; nevertheleſs the laſt road is that the leaſt frequented, as much on account of the long circuit it requires, and the conſtant

* The work entitled El Maranon o Amazonas, 1684, is of no value.

† According to the chart, about 2350 Britiſh miles, 1000 leagues (25 to a degree) is 2768 Britiſh miles.

rains to which the traveller is ſubject on the way, and which render the roads almoſt impaſſable even in the fineſt ſeaſon, as of the difficulty and danger attending the celebrated paſs on quitting the Cordilleras called Pongo. Principally that I might ſurvey this paſs, which is never ſpoken of at Quito without admiration and dread, and that I might lay down on my chart the whole navigable extent of the river, I ſelected of the three roads, the laſt.

I left Tarqui, the ſouthern extremity of our meridian, five leagues ſouth of Cuenca, on the 11th of May 1743. On my journey to Lima in 1737, I travelled the cuſtomary road from Cuenca to Loxa; on this occaſion I went by a circuitous one, paſſing by Zaruma, in order to place that ſpot on my map. I ran ſome riſk in fording the great river Los Jubones, then much ſwollen, and always very rapid, but by choſing this courſe I avoided a greater; as I have ſince been given to underſtand, aſſaſſins employed by the authors of, or accomplices in the murder of our ſurgeon, laid in wait for me on the high road from Cuenca to Loxa.

From a mountain over which I paſſed on my way to Zaruma, Tumbez is diſtinguiſhed, a port on the South-Sea, at which the Spaniards effected their firſt landing, ſouth of the line, on their expedition for the conqueſt of Peru. From this point it was that I began to turn my back on the South-Sea, and take an eaſtward courſe acroſs the continent of South-America. This place was formerly celebrated for its mines, now almoſt abandoned. The gold extracted is much alloyed, being no more than fourteen carats fine; it is mingled with ſilver, and very ductile.

At Zaruma the barometer ſtood at 24 inches two lines; unlike in our climates, beneath the torrid zone it is ſubject to little variation; for at Quito we found that the extreme difference, in the ſpace of ſeveral years, did not exceed a line and a half. Mr. Godin was the firſt who remarked that the variations of the barometer, which in the courſe of four and twenty hours extend to about a line, are ſubject to pretty regular alterations, which, once known, allow the aſcertainment of the mean height of the mercury by a ſingle experiment. The different experiments made by me on the ſhores of the South-Sea, and thoſe I repeated on my journey to Lima, ſatisfied me what this mean height was at the level of the ſea, whence I was enabled to aſſign with tolerable exactitude an elevation of 700 toiſes (about 4400 Engliſh feet), to the territory about Zaruma, an elevation not half ſo great as that of the land about Quito. In this calculation I made uſe of atable computed by M. Bouguer, after an hypotheſis, which has hitherto correſponded better than any other with experiments made with the barometer, and verified by trigonometrical meaſurement. I came from Tarqui, a region rather cold, and experienced great warmth at Zaruma, notwithſtanding I was ſcarcely leſs elevated there than on Mont Pelée, in Martinico, where we found the cold ſevere, aſcending from a low and warm country. I preſuppoſe here that the reader is apprized already of our having conſtantly obſerved, during our long ſojourn in the province of Quito, under the equinoctial line, that the elevation of the ſoil almoſt excluſively determines the degree of heat, and that it does not require one ſhould aſcend ſo high as 2000 toiſes (about 12,600 Engliſh feet), from a valley parched by intenſe heat, to reach the foot of maſſes of ſnow, antient as the globe itſelf, with which a neighbouring mountain is crowned.

On my way, I croſſed many bridges made with cords, bark of trees, or lianas. Theſe lianas, netted together, form an aërial gallery, which is ſuſpended from two large cables of ſimilar materials, the extremities of which are faſtened to branches of trees on oppoſite banks. Collectively, the whole of theſe ſingular bridges reſembles a fiſher's net, or rather an Indian hammock, extending from one to the other ſide of the river.

As the meſhes of this net are very wide, and would ſuffer the foot to go between them, a ſort of flooring is ſuperimpoſed, conſiſting of branches and ſhrubs. It will readily be conceived, that the weight of this net-work, but eſpecially that of the paſſenger, muſt give a conſiderable curve to the bridge; and when, in addition, one reflects that the traveller paſſing it is expoſed to great oſcillations, to which it is incident, particularly when the wind is high, and he reaches near the middle, this kind of bridge, which is oftentimes thirty fathoms long, muſt needs have ſomething frightful in its aſpect: the natives, however, who are far from being naturally intrepid, paſs ſuch bridges on the trot, with their loads on their ſhoulders, together with the ſaddles of the mules, which croſs the river by ſwimming, and laugh at the timidity of the traveller who heſitates to venture. But this is not the moſt ſingular nor moſt dangerous ſort of bridge in the country; I ſhall, however, omit deſcription of the reſt, that I may not wander too far from my ſubject.

I repeated, on paſſing Loxa, my obſervations on the latitude, and the height of the mercury on the barometer, and the reſults agreed with thoſe obtained, in 1737, on my journey to Lima. Loxa is leſs elevated than Quito by about 350 toiſes, and the heat is there ſenſibly greater. The neighbouring mountains are but paltry hills compared with thoſe of the neighbourhood of Quito; but, nevertheleſs, their ridges are the partition-lines of the courſes of rivers; and the very hill on which the beſt Quinquina grows, two leagues ſouth of Loxa, and called Caxanuma, gives birth to ſtreams which flow weſtward to the ſouthern ocean, and eaſtward, after merging in the Marañon, to the Atlantic.

The 3d of June, I ſpent the whole day on one of theſe mountains; though aſſiſted by two Americans of the neighbourhood, whom I took with me for guides, I was able to collect no more than eight or nine young plants of Quinquina in a proper ſtate for tranſportation. Theſe I cauſed to be planted, in earth taken from the ſpot, in a caſe of ſuitable ſize, and had them carried on the ſhoulders of a man conſtantly in my ſight, to the place at which I embarked, hoping to preſerve, at leaſt, ſome of the plants, to leave under charge at Cayenne, if they ſhould not, on my arrival there, be in fit condition for tranſporting to France for the King's garden.

Between Loxa and Jaen, the laſt hills of the Cordilleras are paſſed. The road, on almoſt all this journey, lays through woods, where rain is ſo inceſſant, that it prevails eleven and ſometimes the whole twelve months of the year, ſo that nothing can be kept dry. The baſkets covered with ox-hides, which are the packages uſed in the country, rot, and exhale an intolerably offenſive ſmell. I paſſed by two towns, which now have only their names, Loyola, and Valladolid; both, a century back, were opulent, and teeming with Spaniards; but, at preſent, they are reduced to wretched hamlets of Americans or Meſtees, and removed from their original ſite. Jaen itſelf, which is ſtyled a city, and ſhould be the reſidence of the governor, is now but a miſerable village. Such, indeed, has been the general fate of the major part of theſe towns of Peru, built at a diſtance from the ſea, and out of the high road from Carthagena to Lima. On this route I croſſed a variety of rivers, ſome by fording, others by means of bridges ſimilar to that I have deſcribed; others again on rafts, conſtructed on the ſpot of the timber with which nature has prodigally filled all theſe foreſts. Theſe rivers united form one of great breadth and rapidity, called Chinchipé, ſuperior in volume to the Seine. I deſcended it the ſpace of five leagues on a raft to Tomependa, an American village, within ſight of Jaen, in a pleaſant poſition at the confluence of three great rivers, the middlemoſt of which is Marañon. On the ſouthern ſide it receives the Chachapoyas, on the weſtern that of Chinchipé, down which I floated.

This

This junction of the three rivers takes place in latitude $5\frac{1}{2}^{\circ}$ ſouth; and from this point, notwithſtanding many windings, the main courſe of the Marañon conſtantly approaches nearer, and more near the line till its mouth. Below this ſame point the river narrows, and forces itſelf a paſſage between two mountains, at a ſpot where the violence of its current, the rocks in its bed, and a number of falls, render it unnavigable; what is called the port of Jaen, the place where the traveller embarks, being four days' journey from Jaen on the little river Chuchunga, which merges in the Marañon below the falls. However, notwithſtanding the imagined impracticability of paſſing the cataract, an expreſs diſpatched by me from Tomependa, with orders from the governor of Jaen to his lieutenant at Sant Yago to forward a boat for me to the port, overcame every obſtacle on a little raft, compoſed of two or three pieces of timber, a float ſufficiently large for a naked American, expert as they all are at ſwimming. In my way from Jaen to the port, I croſſed the Marañon, and frequently found myſelf on its banks. Within the interval between the above town and its port, the Marañon receives a number of torrents from the north, which, in the rainy ſeaſon, bring down with them a ſand mingled with ſmall plates and grains of gold. At this ſeaſon the natives go to collect it, but they merely ſeek for what is neceſſary to pay their tribute or poll-tax, and when urgently obliged; at any other ſeaſon, they would rather trample under foot this coveted metal, than take the pains of collecting and cleaning it. Throughout the whole of this diſtrict, both ſides of the river are covered with the wild cocoa-trees, the fruit of which is nothing inferior to the cultivated, but on which, alſo, the natives ſet as little value as on the gold.

The fourth day after my departure from Jaen, I paſſed the torrent Chuchunga, one and twenty times by fording, and the laſt time in a boat; the mules, on reaching the river, daſhed into the water, laden as they were, and, in conſequence, all my inſtruments, books, and papers, were thoroughly wetted. This was the fourth accident of the kind which I had experienced in travelling among the mountains, my caſualties from water never ceaſing until I was fairly embarked on that element.

Chuchunga is an hamlet containing half a ſcore American families, governed by their Cacique, who underſtood about as many Spaniſh words as I did of his native language. I was under neceſſity of leaving behind me at Jaen two ſervants of the country, who might have acted for me as interpreters; and neceſſity enabled me to manage without them. The inhabitants of Chuchunga poſſeſſed no other than ſmall canoes ſuited to their purpoſes, and that I had ſent for by expreſs to Sant Yago could not arrive in leſs than a fortnight, I therefore engaged the Cacique to cauſe his people to frame a raft for me, or, as termed by them, a Balſe, the ſame word denoting as well the float itſelf as the ſpecies of wood of which it is conſtructed; directing him to make it large enough for myſelf, my inſtruments, and baggage. The time occupied in preparing the Balſe, afforded me leiſure to dry my books and papers, ſheet by ſheet, a precaution as neceſſary as it was tedious. The ſun was viſible only about noon, but this glimpſe of it enabled me to take an altitude, which gave for the latitude 5° 21′ ſouth; and from the barometer, ſixteen lines lower than at the ſea-ſide, I gathered that at 235 fathoms above its level, &c.; navigable rivers occur without being interrupted by falls: I am far from inclined to aſſert, that this is not the caſe with the Marañon at a ſtill greater elevation, but I can only ſpeak poſitively of what I know; though it appears far from improbable, that the ſpot at which a river begins to be navigable for boats, the courſe of which river to the ſea is even from here more than a thouſand leagues, ſhould be more elevated above the level of the ocean than that where navigation commences on rivers of ſhorter courſe.

On the 4th of July, in the afternoon, I went on board a ſmall two-oared canoe, preceded by the Balſe, and eſcorted by all the Indians of the hamlet. They were up to the middle in the water for the purpoſe of guiding the Balſe through difficult channels, and preſerving it from rocks, and down the gentle falls, from the violence of the current. The ſucceeding day, after a very tortuous courſe, I entered the Marañon about four leagues north of the ſpot where I embarked. Here it is the Marañon begins to be navigable. It now became neceſſary to enlarge and ſtrengthen the raft, which, before, had been proportioned to the bed of the river I had floated down. During the night, the river roſe ten feet, and rendered neceſſary a haſty removal of a bower which had ſerved me for ſhelter, and which the natives raiſe with marvellous ſkill and promptitude. In this ſpot I was detained three days by advice, or rather by order of the guides, on whom I was obliged to rely. They had in conſequence full leiſure to prepare the Balſe, and I alſo to make obſervations. I meaſured the breadth of the river trigonometrically, and, though narrower than before by from 15 to 20 toiſes, I found it 135 toiſes wide *. Many rivers which it receives above Jaen are much broader, which made me conclude its depth to be very conſiderable: in fact, though I ſounded with 28 toiſes of cord, this did not reach its bottom at a third of its breadth from the ſide. In the middle of the ſtream I was unable to obtain ſoundings, as a canoe in this part was carried along at the rate of a fathom and a half in a ſecond. The barometer, higher by four lines than at the port, indicated the level of the river to be lower by 50 toiſes than at Chuchunga, from which place I had been but eight hours in deſcending. At the ſame place, I found the latitude 5° 1′ ſouth.

On the 8th, I continued my route, and paſſed the ſtrait of Cumbinamba, dangerous on account of the ſtones with which it is filled. It is ſcarcely 20 toiſes broad. The next day I came to that of Eſcarrebragas, which is one of a different deſcription. The river, arreſted in its courſe by the ſide of a ſteep rock, againſt which it ſtrikes, is diverted ſuddenly, ſo as to form a right-angle with its former direction. The ſhock of the tide, rendered more impetuous by the narrowneſs of the channel, has hollowed a deep bay, where the waters of the margin, ſeparated by the rapidity of the mid-ſtream, are kept back. My raft, on which at that time I happened to be driven by the current into this bay, for an hour and ſome minutes, was inceſſantly whirled about, the ſport of eddies. The waters, as they revolved, bore me towards the mid ſtream, where the waves, occaſioned by the revulſion of the eddies, would infallibly have overwhelmed a ſmall canoe; the ſize and ſolidity of the float ſecured it from this danger, but repeatedly did the force of the current drive me back to the bottom of the bay, from which I was indebted for my ultimate releaſe to the ſkill of four Americans, whom I had retained with a ſmall canoe in caſe of accident. Theſe, navigating their bark along the margin, climbed the rock, from which, with much difficulty, they threw Lianas, the ſubſtitutes in this country for cords, on board the raft, and, by means of theſe, dragged it into the current. The ſame day, I paſſed a third ſtrait, called Guaracayo, in which the bed of the river, confined between two immenſe rocks, is only thirty toiſes broad; this ſtrait is dangerous only at the period of great ſwells. On the evening of the ſame day, I met the large canoe from Sant Yago; but it would have taken it ſix days more to have reached the ſpot from which I had fallen down ſince the morning, and which had taken me only ten hours.

* 840 Engliſh feet wide; depth upwards of 175 feet; diſtance from the ſea more than 2,600 Britiſh miles.

On the 10th, I arrived at Sant Yago de las Montañas, a hamlet ſituate at the mouth of the river of ſimilar name, and built from the ruins of a town which had given denomination to the river. The banks of it are inhabited by an American nation called Xibaros, formerly Chriſtians, but who ſhook off the Spaniſh yoke a century ago, to eſcape from the toil exacted from them in working the gold mines of their country: ever ſince, ſecluded in inacceſſible woods, they preſerve themſelves independent, and impede the navigation of this river, by which it would be eaſy to fall down in the ſpace of a week, from the vicinage of Loxa and Cuenca, the tranſit whence had taken me two months. The dread inſpired by theſe Indians has twice obliged the inhabitants of Sant Yago to change their abode, and, in courſe of the laſt forty years, to deſcend to the ſpot where that river empties itſelf into the Marañon.

Below Sant Yago is Borja, a town of much the ſame ſtamp as the preceding, though the capital of the government of Maynas, a government which comprehends all the Spaniſh miſſions on the banks of the Marañon. Borja is divided from Sant Yago merely by the famous Pongo de Manſeriché. Pongo, anciently Poncu, ſignifies in the Peruvian language a gate. It is a term, in this language, given to all narrow paſſes, but to this as a mark of excellence. This ſtrait is a road worked for itſelf by the Marañon in its paſſage eaſtward, after a courſe of two hundred leagues towards the north and the mountains of the Cordilleras, its bed being dug between two parallel walls of rock almoſt perpendicular. Little more than a century has elapſed ſince certain Spaniſh ſoldiers of Sant Yago diſcovered this paſſage, and went through it. Two Jeſuit miſſionaries followed them ſhortly after, and, in 1639, founded the miſſion of Maynas, which extends to a conſiderable diſtance down the river. Arrived at Sant Yago, I hoped to croſs over to Borja the ſame day, and, indeed, an hour would have carried me thither, but ſpite of reiterated expreſſes, ſpite of the orders and recommendations with which we were conſtantly well provided, but which were ſo ſeldom duly attended to, the timber of the large raft with which I was to paſs the Pongo was not yet felled. I contented myſelf with ſtrengthening mine by a new fence, with which I cauſed it to be ſurrounded, to enable it to reſiſt the firſt effect of the almoſt inevitable ſhocks to which the rafts, from their mode of ſtructure, and being without any rudder, are unavoidably liable in the windings of the ſtrait. As for the canoes, they are ſo light, that they are guided by the ſame paddles with which they are rowed.

I was unable to overcome the repugnance of my mariners to attempt the paſſage on the day after my arrival, owing to the waters, as they ſaid, not being ſufficiently low. All I could induce them to, was to croſs over to the oppoſite ſide, there to wait a favourable opportunity in a ſmall bay at the entrance of the Pongo; in this, the violence of the current is ſuch that, although properly ſpeaking there be no cataract, the waters ſeem to plunge, while the ſhock of them, as they daſh againſt the rocks, deafens the ear with its tremendous noiſe.

The four Americans who had followed me thus far from the port of Jaen, leſs ſolicitous than I of a near view of the Pongo, proceeded onwards by a footpath, or rather a ſtaircaſe cut in the rock, to wait for me at Borja. In conſequence, this night, as the preceding, I was left on the raft with no other companion than an old negro ſlave. Lucky for me it was, that I determined on not leaving him alone, as I was threatened with an accident perhaps without a parallel. The river, which in thirty-ſix hours fell five and twenty feet, ſtill continued viſibly to ſink. In the middle of the night, the ſplinter of an immenſe branch of a tree, concealed under water, penetrated between the timbers of my raft, and, in proportion as the waters abated of their height, became more deeply entangled, ſo that, had I not been preſent and awake, I ſhould in all

all probability have been left on the raft, ſubtended in the air by the branch; in which caſe, the lighteſt misfortune I ſhould have incurred, would have been the loſs of my journals and obſervations, the fruit of eight years' toil. I ſucceeded, fortunately, in diſengaging the raft, and ſetting it again on float.

I availed myſelf of my obligatory ſtay at Sant Yago to meaſure trigonometrically the breadth of the two rivers, and to take the angles required to enable me to draw a topographical chart of the Pongo.

The 12th July, at noon, I cauſed the raft to be unmoored, and puſhed from ſhore; ſoon I found myſelf carried along by the ſtream in a deep and narrow gallery, formed by two walls of rock, in ſome parts ſlanting, but in others perpendicular; in leſs than an hour, I was tranſported to Borja, three leagues, according to common computation, from Sant Yago. However, the Balſe, which did not draw half a foot of water, and which, from the bulk of its loading, preſented to the air a reſiſtance ſeven or eight times as great as that it oppoſed to the current, did not conſequently proceed with equal velocity to that of the current itſelf; and this velocity diminiſhes materially as the channel increaſes towards Borja. In the narroweſt part I reckoned, that, comparing the ſpeed of our courſe with that on former occaſions, which I had meaſured trigonometrically, in the narroweſt part, we were carried along at the rate of two toiſes in a ſecond.

The channel of Pongo, hollowed by the hand of nature, begins a ſhort league below Sant Yago, narrowing gradually till, from 250 toiſes, the breadth at the junction of the two rivers, it diminiſhes in the narroweſt part to twenty-five. I know very well, that the breadth hitherto aſcribed to the narroweſt part of the Pongo, is only five and twenty Varas, equivalent ſcarcely to ten of our toiſes; and that the paſſage from Sant Yago is ſaid to be effected in a quarter of an hour. For my part, I remarked that, in the very narroweſt part, I was at leaſt thrice the length of my raft from either ſide. I moreover obſerved by my watch, that we were fifty-ſeven minutes in ſpeeding from the entrance of the ſtrait to Borja, and all combined, I found the meaſures as I have given them; and, however well inclined to ſhew a deference to the opinion commonly received, I can ſcarcely admit the diſtance from Sant Yago to Borja, inſtead of three, as computed, to be even ſo much as two leagues, of twenty to a degree.

I ſtruck twice or thrice with violence againſt the rocks in courſe of the different windings, an accident calculated, but for being forewarned of the little danger thence to be apprehended, to create no ſmall portion of alarm. A canoe on ſuch an occaſion would be daſhed into a thouſand pieces; and the ſpot was pointed out to me, as I paſſed along, where a governor of Maynas thus met deſtruction: but the beams of the raft being neither nailed nor dovetailed together, the flexibility of the Lianas, by which they are faſtened, have the effect of a ſpring, and deadens the ſhock ſo, that when the ſtrait is paſſed in a raft, theſe percuſſions occur unheeded. The greateſt danger for theſe is, their being liable to be driven out of the ſtream into eddies, an accident which, as related above, it was my lot to experience. Not a year had elapſed before ſince a miſſionary, drawn thus into a vortex, was kept in it for two days deſtitute of proviſions; and, but for a ſudden ſwell of the river, which brought him again into the current, he might there have periſhed of hunger. The Pongo is never attempted in a canoe, except when the waters are ſo low as to admit its being ſteered without being overpowered by the ſtream. Canoes alſo ſtem the current when the waters are at their loweſt, and aſcend; but this is impracticable for Balſes.

At Borja, I found myſelf in a new world, ſeparate from all human intercourſe, on a freſh water ſea, ſurrounded by a maze of lakes, rivers, and canals, penetrating in every

every direction the gloom of an immenſe foreſt, which but for them were forbidden to acceſs. New plants, new animals, and new races of men, were exhibited to view. Accuſtomed during ſeven years to mountains loſt in clouds, I was wrapt in admiration at the wide circle embraced by the eye, reſtricted here by no other boundary than the horizon, ſave where the hills of Pongo, ſoon about to diſappear, raiſed themſelves to checquer the conſtant monotony of the ſcene. To the crowd of varying objects which diverſify the cultured fields of Quito, and which ſtill preſented themſelves to the imagination, ſucceeded the moſt uniform contraſt, the whole to be ſeen being verdure and water; for the earth is ſo thickly covered with tufted plants and buſhes, that it is trod, but not perceived; to find a barren ſpace, though but a foot ſquare, requiring a world of toil. Below Borja, and 4 or 500 leagues beyond, on falling down the river, a ſtone, nay a pebble, is an object rare as a diamond. The ſavages of theſe countries indeed have no conception of ſtones, and when, on viſiting Borja, they firſt perceive them, the wonder they occaſion is admirable to behold; every geſture tokens ſurpriſe; they collect them together, and load themſelves with the precious burden, till, beginning to notice their abundance, they finally diſregard, and throw them away.

Before I proceed farther, I deem it right to ſay a word of the genius and character of the primitive inhabitants of South America, improperly called Indians, in ſpeaking of whom, I mean to include neither the Spaniſh or Portugueſe Creols, nor the various races produced by a mixture of Europeans with the blacks of Africa, or the red men of America, ſince the eſtabliſhment of the firſt in the country, and the introduction by them of the Negroes of Guinea.

All the old natives of the country are of a tawny colour, inclining to a red of different ſhades of brightneſs; the difference in the ſhades ariſing probably in a great degree from the varying temperature of the climate they inhabit, which embrace the intenſe heat of the torrid zone with the cold of the vicinage of ſnow.

This variety of climates; the wooded countries, plains, mountains, and rivers, which different ſites afford; a difference of aliment; the little intercourſe ſubſiſting between neighbouring nations, and numerous other cauſes, muſt neceſſarily have introduced a variety in the occupations, as in the cuſtoms of theſe people. Again, it will readily be conjectured that a nation, become Chriſtian, and ſubject during a century or two to the Spaniſh or Portugueſe yoke, muſt, of conſequence, have adopted ſomewhat of the manners of its conquerors, and that an American inhabitant of a town or village in Peru, for example, muſt differ from the ſavage of the interior, and even from a new inhabitant of thoſe countries in which miſſions are eſtabliſhed on the Marañon. In order, therefore, to preſent an exact idea of the American people, almoſt as many deſcriptions are requiſite as there are nations; however, as in Europe all nations, notwithſtanding diſtinct languages, manners, and cuſtoms, have yet ſomewhat in common to the eyes of an Aſiatic who examines them with attention, ſo do all the Americans of the different countries I had opportunity of noticing in the courſe of my travels, preſent features of reſemblance, the one to the other, indeed (with exception of light ſhades of difference, ſcarcely to be diſtinguiſhed by a paſſing obſerver,) I fancied in all alike a ſimilar baſe of character.

Inſenſibility among theſe people is generally prevalent, which, whether to be dignified by the name of apathy, or ſunk in that of ſtupidity, I leave to the deciſion of others. Undoubtedly it is cauſed by the paucity of their ideas, which extend no farther than their wants. Voracious gluttons, where means of fatiety exiſt; when want enforces ſobriety they patiently bear with abſtinence, and ſeem to be void of care. Puſillanimous and timid in extreme, unleſs when tranſported by drunkenneſs; inimical to toil; indifferent

indifferent to every impulſe of glory, honor, or gratitude; wholly engroſſed and determined by the object of the moment, without concern for the future; deſtitute of foreſight and reflection; and giving themſelves up, when nothing prevents them, to a childiſh joy, which they manifeſt by leaping, and loud burſts of laughter, with no apparent object; they paſs their lives without thought, and ſee old age advance, yet unremoved from childhood, and preſerving all its faults.

Were this the picture merely of the Indians of ſome provinces of Peru, who may be regarded as ſlaves, the want of civilization might be aſcribed to the degeneracy incident on their ſervile ſtate; for the degradation to which ſlavery is capable of reducing man, is ſufficiently exemplified in the preſent condition of the Greek nation: But the Americans of the country of the miſſions, and the ſavages free from all controul of Europeans, ſhewing themſelves equally limited, not to ſay ſtupid, with the others, the reaſoning mind cannot but feel humiliation, contemplating how little man, in a ſtate of nature, and deſtitute of inſtruction and ſociety, is removed in condition from beaſts.

All the languages of South-America with which I am acquainted, are very poor; many poſſeſs energy, and are ſuſceptible of elegance, eſpecially the antient language of Peru; but they are univerſally barren of terms for the expreſſion of abſtract or univerſal ideas, an evident proof of the ſlight progreſs of intellect among theſe people. Time, duration, ſpace, entity, ſubſtance, matter, corporeity; theſe are words which, with many others, have no equivalent in their languages. Not only metaphyſical terms, but alſo moral attributes, require long periphraſes to be expreſſed, though with them, in but an imperfect manner. They have no words that correſpond exactly with virtue, juſtice, liberty, gratitude ingratitude; a fact with which it ſeems difficult to reconcile what Garcilaſo relates of the policy, induſtry, arts, government and genius of the antient Peruvians. Unleſs the love he bore his country induced him to exaggerate, we muſt needs allow that theſe people have greatly degenerated from their anceſtors. As for the other nations of South-America, they are not known to have ever emerged from their priſtine barbariſm.

I have formed a vocabulary of the moſt common words in different American languages. A compariſon of theſe words with thoſe of ſimilar import in other languages of the interior, may not only be ſerviceable towards proving the different tranſmigrations of theſe people from one to the other extremity of this vaſt continent: but where it can be effected alſo with the different languages of Africa, Europe, aud the Eaſt-Indies, may furniſh, poſſibly, the only means of aſcertaining the origin of the Americans. A well-proved conformity of language would without doubt ſolve the queſtion. The word abba, baba, or papa, and that of mama, which with ſlight inflections ſeem to have been adopted from the antient tongues of the eaſtern world by a majority of the nations of Europe, are common to a great number of the American nations, however different the reſt of their language. And though we ſhould allow theſe words to be thoſe which would preferably be received in every country by parents, from their being the firſt articulations of infancy, as the repreſentatives of the relation of father and mother, it yet follows to enquire wherefore, in all the languages of America in which theſe words occur, the application of them ſhould be uniformly the ſame, without their meaning being reverſed; for example, how comes it in the Omagua language, ſpoken in the centre of the American continent, and in which the terms papa and mama are uſed, that papa ſhould never ſignify mother, nor mama father, but the contrary, as in the languages of Europe and the eaſt. It is far from improbable, that among the natives of America other terms might be found, the well con-

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firmed relation of which with thoſe of ſome other language of the antient world, throw light on a queſtion hitherto left purely to conjecture.

I was expected at Borja by the reverend Father Magnin from the canton Fribourg, a Jeſuit miſſionary, from whom I received that attention and kindneſs naturally to be expected from a friend and countryman. I had no occaſion with him, nor afterwards with the other miſſionaries of his order, to avail myſelf of the recommendations I brought from their friends at Quito, and ſtill leſs of the paſſports and orders of the court of Spain, which I carried with me. Beſides other curioſities in natural hiſtory, this Father made me a preſent of a chart, drawn by him, of the territory of the Spaniſh miſſions of the Maynas, together with a deſcription of the manners and cuſtoms of the neighbouring nations. During my ſtay at Cayenne I was aſſiſted by Mr. Artur, phyſician to the King, and member of the Upper Council of that colony, in tranſlating this Spaniſh work into French: it is highly worthy the curioſity of the public.

I found the latitude of Borja 4° 28′ S.

From this place I took my departure on the 14th July with the ſame Father, who was ſo obliging to accompany me as far as Laguna. On the fifteenth we paſſed on the north the mouth of the Morona, which flows from the volcano Sangay, the aſhes thrown from which, traverſing the provinces Macas and Quito, are ſometimes carried beyond Guyaquil. Beyond this, on the ſame ſide, we diſtinguiſhed the three mouths of the river Paſtaca before mentioned. At this time its banks were ſo much overflown that no landing could be effected; I was conſequently unable to meaſure the breadth of its principal mouth, which I reckoned to be 400 toiſes, nearly equalling the breadth of the Marañon itſelf. A little beyond, the ſame evening and the ſucceeding morn, I obſerved the ſun at its ſetting and riſing, and, as at Quito, I found its declenſion $8\frac{1}{2}°$ towards the north. By two amplitudes thus obſerved in ſucceſſion in the evening and morning, the variation of the needle may be computed without knowing that of the ſun; all that is required being to notice the difference of declenſion of the ſun in the interval of the two obſervations, provided this difference be ſufficiently great to be ſhown by the compaſs.

On the 19th we arrived at Laguna, where Don Pedro Maldonado, governor of the province of Eſmeraldus, had been waiting for me ſix weeks; to this nobleman, as well as to his two brothers and his entire family, I owe a public acknowledgement for the diſtinguiſhed civilities our academic detachment experienced at their hands, during our long ſtay in the province of Quito. He, as well as myſelf, on his paſſage to Europe, felt diſpoſed to proceed down the river of Amazons, and had taken the ſecond of the three routs deſcending the Paſtaca; after many dangers and great fatigue he had been fortunate enough to arrive much before me, notwithſtanding the period of his departure from Quito was nearly the ſame as that at which I left Cuenca; he had made the requiſite obſervations as he travelled along, with a compaſs and portable gnomon, to enable him to deſcribe the courſe of the Paſtaca, an undertaking, to which I not only had prompted him, but likewiſe facilitated, by furniſhing him with means for its execution.

Laguna is a conſiderable village, containing more than a thouſand Americans capable of bearing arms, who are a medley of various nations. It is the chief eſtabliſhment of all the miſſions of the province of Maynas. The town is placed on dry and elevated ground, which is rare to be ſeen in theſe countries, and at the ſame time on the margin of a great lake, five leagues above the mouth of the Guallaga, a river which, like the Marañon, has its origin in the mountains eaſtward of Lima. By the Guallaga it was that Pedro de Urſoa, of whom mention has already been made, deſcended to the river

river of Amazons. The memory of his expedition and the events which occaſioned his lamentable end, is ſtill preſerved among the inhabitants of Lamas, a ſmall place in the neighbourhood of the port at which he embarked. The breadth of the Guallaga on its influx into the Marañon might, at this time, be 250 toiſes. It is a river very inferior in volume to the majority of thoſe I ſhall have occaſion to notice as I proceed.

At Laguna I made a number of obſervations on the ſun and ſtars, in order to determine the latitude, which I found to be 5° 14′. I made a halt here of twenty-four hours, for the purpoſe of aſcertaining the longitude, but I loſt ſight of Jupiter in the vapours of the horizon, before I could diſtinguiſh its firſt ſatellite emerging from its ſhadow.

On the 23d Mr. Maldonado and myſelf left Laguna in two canoes from forty-two to forty-four feet long, by only three in breadth, each formed of the trunk of a ſingle tree. In theſe canoes the rowers are placed from the prow to the middle, the traveller and his equipage at the poop, under ſhelter from the ſun and rain beneath a rounded canopy, formed with much ingenuity by the natives, of matted palm leaves. This ſpecies of bower has a cavity in the middle of the roof, by which light is admitted, and it ſerves likewiſe to enter by; in caſe of rain, or otherwiſe at the pleaſure of the traveller, this entrance is cloſed by a ſliding roof of ſimilar materials, which draws over that which is fixed.

We reſolved on continuing our voyage by night as well as by day, in order to overtake, if poſſible, the brigantines, or large canoes diſpatched annually by the Portugueſe miſſionaries to Para in queſt of neceſſaries. During the day our Americans paddled along; two only of their number kept watch during the night, the one at the prow, the other at the ſtern, to preſerve the boat in the current.

In undertaking a chart of the courſe of the river of Amazons, I provided myſelf a reſource againſt the tireſomeneſs of a weary though tranquil voyage through a country, in which the continued ſameneſs of objects, however novel in themſelves, tended to fatigue rather than pleaſe the eye. My attention was perpetually engroſſed by the compaſs, and the watch I held in my hand, in order to obſerve the deflections of the courſe of the river, and the time occupied between each bend; to notice the varying breadth of its bed, and that of the mouths of the different rivers it receives, with the angles formed by them on delivering their waters; the occurrence of iſlands and the length of them; but eſpecially to aſcertain the degree of celerity with which the current flowed, and the canoe proceeded along, uſing for theſe laſt purpoſes various methods too tedious to explain. Every inſtant of my time was employed: repeatedly I fathomed the depth of the ſtream; almoſt every day I took a meridianal altitude, and oftentimes obſerved the amplitude of the ſun at its riſing and ſetting: wherever I made a halt, there likewiſe did I determine the height of the barometer. I ſhall notice theſe obſervations only in the moſt remarkable ſpots, reſerving a more minute detail for our private meetings.

On the 25th we paſſed on the north ſide the river Tiger, which poſſibly exceeds in ſize the cognominal one in Aſia, but which, for its celebrity leſs happily ſituate, is here loſt, owing to the vaſt ſuperiority of a number of other rivers. This day at an early hour, we halted on the ſame ſide of the river at a miſſion newly eſtabliſhed among ſavages, denominated Tameos, who had recently been drawn from the woods. The language of this people is indeſcribably difficult, and their enunciation ſtill more extraordinary than their language. They draw their breath in ſpeaking in ſuch manner that the ſound of ſcarcely one vowel can be diſtinguiſhed. They have words which, to deſcribe, and then but imperfectly, would require at leaſt nine or ten ſyllables, though as pronounced by them they ſeem to conſiſt of but three or four; Poettarraro-

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rincouroac ſignifies the number *three* in this tongue: happily for thoſe who have tranſactions with them, their arithmetic goes no farther. However incredible it may appear, this is not the only American nation with whom an equal poverty of numbers is common. The Brazilian tongue, a language ſpoken by people leſs ſavage and uncivilized, is equally barren; the people who ſpeak it, where more than three is to be expreſſed, are obliged to uſe the Portugueſe.

The Yameos are well ſkilled in the art of making long Sarbacanas, the moſt common inſtrument uſed by native Americans on their hunting excurſions. Within theſe they inſert ſmall arrows, made of wood, and, inſtead of being feathered, ſurrounded by a ball of cotton which exactly fills the cavity of the tube. By a ſtrong puff of the breath they dart theſe arrows to the diſtance of thirty or forty paces, and ſcarcely ever miſs their aim. This ſimple inſtrument ſerves as an admirable ſubſtitute among all theſe ſavages for fire-arms. The points of theſe diminutive arrows, as well as thoſe they ſhoot from their bows, are ſteeped in a poiſon of ſuch activity, that when recent it kills any animal from which the inſtrument dipped in it may chance to draw blood. Notwithſtanding we had fowling peices, we ſcarcely ever, in going down the river, ate of game killed by other means than theſe arrows, the tips of which we often diſcovered in eating, between our teeth; there is no danger from ſuch occurrences, for the venom of this poiſon is only mortal when abſorbed by the blood, in which caſe it is no leſs fatal to man than to animals. The antidote is ſalt, but of ſafer dependence ſugar. In their proper place, I ſhall notice the experiments I made to aſcertain the truth of this opinion, as well at Cayenne as at Leyden.

The next day, the 26th, we fell in with, on the ſouthern ſide of the mouth of the Ucayale, one of the largeſt rivers which ſwell the tide of the Marañon. It is even a moot point which of the two ſhould be eſteemed the chief, and which the tributary. At their confluence, the Ucayale is the broadeſt of the two, and its ſources are more diſtant and more copious than thoſe of the other; it receives the waters of many provinces of Peru, and at the ſame degree of latitude at which the Marañon is only a torrent, it is enlarged by the tribute of the Apu-rimac, and already flows a conſiderable ſtream; to conclude, the Ucayale, on meeting the Marañon, repulſes its tide and changes its courſe. On the other hand, before its juncture with the Ucayale, the Marañon makes a long circuit and receives the rivers St. Jago, Paſtaca, Guallaga, &c.; moreover, the Marañon is throughout its courſe of very great depth. Still again the depth of the Ucayale has never yet been fathomed, nor is it known what the number or what the volume of the rivers it receives. I think therefore that the queſtion, of which ſhould be conſidered the main ſtream, muſt remain undecided till the Ucayale be better known. This it was likely to have been at one period, but the inſurrection of the Cunivos and the Piros, who maſſacred their miſſionary in 1695, by occaſioning the abandonment of the eſtabliſhments effected on its banks, have placed this event at a diſtance.

Below the Ucayale the breadth of the Marañon is viſibly increaſed, as is the number of its iſlands. On the 27th in the morning, we reached the miſſionary eſtabliſhment of Saint Joachim, compoſed of a number of American nations, eſpecially of the Omaguas, a people formerly powerful, and which a century before inhabited the iſlands and banks of the Amazons river throughout a ſpace of two hundred leagues below the Napo. Nevertheleſs this people is not eſteemed to be originally of this country, and there is much probability that they proceeded to their ſettlement on the Marañon down ſome of the rivers which flow into it from the new kingdom of Gre-

nada, flying hither to avoid the dominion of the Spaniards, at the period of their conquering the country they abandoned.

This opinion is founded on the fact of the exiſtence of a nation near the ſource of one of theſe rivers, and known by the name of Omagua; on the uſe of clothes, a circumſtance noticed among the Omaguas alone of all the tribes found on the Amazons; ſome veſtiges of the ceremony of baptiſm; and finally, certain diſfigured traditions. Father Samuel Fritz converted the whole of this people to chriſtianity at the cloſe of the laſt century (the ſeventeenth), and as many as thirty of their villages are laid down by name, in the map of that Father, of which however we could only trace the ruins or the ſite; the whole of their population, intimidated by certain ruffians from Para, who aſcended the river thus far, and made ſlaves of many of them, having fled to the woods, or diſperſed among the miſſions of Spain and Portugal.

The Peruvian word Omagua, and the Brazilian term Cambevas, applied by the Portugueſe of Para to theſe people, alike ſignify flat-head; and in fact this nation has adopted the whimſical practice of preſſing between two boards, the forehead of their new-born infants, in order to give it the ſingular form which originated their denomination, and, as they ſay, to make them more perfectly reſemble the full moon. The language of the Omaguas is as ſweet and eaſy of enunciation, as that of the Yameos is harſh and difficult: it has no affinity to that of Peru or that of Brazil, the one common above, the other below the country of the Omaguas, along the banks of the river.

The Omaguas make great uſe of two plants, both purgative; the flower of the one, called by the Spaniards Floripondio, reſembles an inverted bell; this plant has been deſcribed by F. Feuillée; of the other plant called Curupa, I brought away the ſeed. This people, by means of theſe, effect an intoxication which laſts twenty-four hours, during which they are ſubject to extraordinary viſions. They moreover take the Curupa dried and reduced to powder, as we do ſnuff, but after a ſingular faſhion. They uſe for the purpoſe a reed terminating in two prongs like the letter Y, each extremity of which is inſerted into either noſtril; from theſe, by a ſtrong inſpiration which occaſions their making a grimace that to Europeans, accuſtomed to refer every thing to their own cuſtoms, appears truly laughable, they inhale the powder.

In a country where heat and moiſture combine to excite the greateſt fertility, it will naturally be concluded, that the abundance and variety of plants muſt be great. Thoſe of the province of Quito will not have eſcaped the reſearches of our aſſociate M. Joſ. de Juſſieu, but I may ſafely affirm, that the multiplicity and diverſity of the trees and plants found on the banks of the Amazons river, in its courſe from the Cordilleras de los Andes to the ſea, and on the banks of the different rivers its tributaries, would require years of toil from the moſt indefatigable botaniſt, and employ for the ſame ſpace more than one draughtſman to deſcribe. I ſpeak here merely of the labour which a minute delineation of all theſe plants, and the reduction of them into claſſes, genera, and ſpecies, would neceſſarily require, but if to this were ſuperadded an examination into the virtues aſcribed to them by the natives of the country, certainly the moſt intereſting part of a ſtudy of this nature, how tediouſly long were the taſk! No doubt theſe virtues have been much mis-ſtated and greatly exaggerated by prejudice and ignorance, but are we to imagine that Bark, Ippecacuhana, Simaroba, Salſaparilla, Guiacum, Cacos, and Vanilla, are the only uſeful plants which the fruitful boſom of America preſents? And does not the well-atteſted and widely-acknowledged uſefulneſs of theſe hold forth encouragement to new reſearches? For my part, all I was enabled to effect, was, to collect ſeed at every ſtep of my journey, where this was practicable.

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The genus of plants which ſeemed moſt to ſtrike the attention of new comers, on account of the ſingularity of its different ſpecies, was in my eſteem the Liana, a kind of oziers, which as before noticed ſerves in lieu of cordage, and which is very abundant in all the hot parts of America. All the ſpecies of this genus have this in common, that they twine around the trees and ſhrubs in their way, and after progreſſively extending to the branches, occaſionally to a prodigious height, throw out ſhoots which, declining perpendicularly, ſtrike root in the ground beneath, and riſe again to repeat the ſame courſe of uncommon growth. Other filaments again, driven obliquely by the winds, frequently attach themſelves to contiguous trees, and form a confuſed ſpectacle of cords, ſome in ſuſpenſion, and others ſtretched in every direction, not unfrequently reſembling the rigging of a ſhip. Of theſe Lianas there are ſcarcely any but to which ſome particular virtues are aſcribed, ſome of them with appropriate juſtice, as in the inſtance of Ippecacuhana. In many parts I obſerved a ſpecies readily diſcovered by its potent and diſtinct odour, reſembling that of garlic. Some of theſe Lianas are as thick as, nay thicker even than the arm of man, and ſome, like the Boa Conſtrictor its victims, ſtrangle and deſtroy the tree round which they twine their paraſitic arms: to theſe, a well-earned name, the Spaniards have given the title of Matapalo (wood-killer). At times it happens that the tree dies at root, and the trunk rots and falls in powder, leaving nothing but the ſpirals of the Liana in form of a tortuous column, inſulated, and open to the day; nature in this inſtance laughing to ſcorn, and defying the imitations of art.

The gums, reſins, balſams, nay juices of every ſort, which exude by inciſion from different kinds of trees, as well as the various oils extracted from them, are numberleſs. The oil obtained from a palm called Unguravé is reputed to be equally ſweet, and by ſome as pleaſant to the taſte, as that of the olive. That of others again, for example the Andiroba, yields a brilliant light, without the leaſt offenſive ſmell. In many parts the Americans, in lieu of oil, burn Copul, ſurrounded by leaves from the Banana tree; in others, certain ſeeds threaded on a pointed ſlip of wood, which, ſtuck in the ground, ſerves as a candleſtick. The reſin called Cahouchou in the province of Quito, where it grows in the vicinage of the ſea, is alſo very common on the banks of the Marañon, and is uſed there for ſimilar purpoſes; when freſh, by means of moulds, any ſhape is given to it at pleaſure; it is impervious to rain, but its moſt remarkable property is its elaſticity. Of it are made infrangible bottles, boots, and hollow balls, which can be flattened at will, but which, when the preſſure that flattens them is removed, aſſume again their priſtine form. From the Omaguas the Portugueſe of Para learnt the method of forming ſyringes of the ſame matter, and pumps which need no ſucker: theſe ſyringes are made in the ſhape of a pear, with a neck at the extremity, that, as well as the body, being hollow. Into this neck a cane is fitted. When it is wiſhed to fill this veſſel with a fluid, the air is expelled by preſſure, and the reed inſerted downwards into the fluid; on removal of the preſſure the veſſel reſumes its ſhape, and the fluid preſſed upon by the circumambient air, is forced into the vacuum formed by the reſtoration of its ſhape to the veſſel; this when full being ſuddenly preſſed the contained liquid is expelled with the ſame effect as from a ſyringe; among the Omaguas it is a very common utenſil. When they aſſemble on occaſion of any entertainment, the maſter of the houſe never fails to preſent one of theſe bottles to each of his gueſts, and its contents are voided conſtantly previous to the beginning of a grand dinner.

At Saint Joachim we took other canoes and a freſh crew, departing thence the 29th July, with a deſign of reaching the mouth of the Napo in time to obſerve at that place

an emerſion of the firſt ſatellite of Jupiter, which would occur on the night between the 31ſt and the 1ſt of Auguſt. From the period of commencing my journey, I had no certain point of longitude aſcertained wherewith to correct my computed diſtances, from weſt to eaſt; however the travels of Orellana, Texeira, and Father Acuna which had rendered famous the river Napo, and the pretenſions of Portugal to both ſides of the river of Amazons as far as the Napo, made it important to determine the exact poſition of this point. In ſpite of various obſtacles, I happily ſucceeded in completing my obſervation, and thus reaped the firſt fruit of the toil which the tranſport of a teleſcope eighteen feet long, over mountains and through woods, for the ſpace of one hundred and fifty leagues, muſt neceſſarily have occaſioned. My fellow-traveller, actuated with the ſame zeal as myſelf, on this occaſion, and on a variety of others at which he rendered me aſſiſtance, was of great ſervice, his intelligence and activity being equally exerted. I firſt obſerved the height of the ſun at noon, in an iſland oppoſite to the great mouth of the Napo, which I found to be 3° 24′ S. I computed the whole breadth of the Marañon below the iſland, at nine hundred toiſes, but was only able to meaſure one of its branches trigonometrically. The Napo appeared to me ſix hundred toiſes broad above the iſlands at its mouth, which divide it into ſeveral arms. At length, the ſame night, I obſerved the emerſion of the firſt ſatellite of Jupiter, and immediately afterwards, to aſcertain the time, I took the height of two ſtars. The intervals between the obſervations were computed by an excellent watch, and by theſe means, the mounting and regulating of a pendulum, a matter which was ſcarcely poſſible of execution, and which would have required ſome time, was rendered unneceſſary. The reſult of the calculation I made, was, that the difference between the two meridians of Paris and the mouth of the Napo, was four hours and three quarters. This determination will be rendered more exact when the preciſe inſtant of obſervation ſhall be aſcertained at ſome place the longitude of which is known, and at which the emerſion may have been viſible.

After obſerving the longitude, we continued our way; and the next morning, the 1ſt Auguſt, landed ten or twelve miles below the mouth of the Napo at Pevas, now the laſt of the miſſionary eſtabliſhments belonging to Spain on the banks of the Marañon. Father Fritz had laid them down as extending two hundred leagues beyond, but, in 1710, the Portugueſe poſſeſſed themſelves of the major part of the lands thus deſcribed as pertaining to Spain. The ſavages of the neighbourhood of Napo were never completely ſubdued by the Spaniards, for, at different periods, the governors and miſſionaries ſent to reduce them to ſubjection, have been maſſacred; but fifteen or twenty years back, the Jeſuits of Quito formed eſtabliſhments here anew, ſending other miſſionaries; and theſe ſettlements, at preſent, are in a highly flouriſhing condition.

The name of Pevas, given to the town at which we landed, is that of an American nation, many individuals of which are inhabitants; but here are collected Americans of divers nations, each of which has a language peculiarly its own, as is common over the whole continent. It ſometimes happens, that a language is known to no more than two or three families, the wretched veſtige of a tribe deſtroyed, and devoured by ſome other: for, notwithſtanding there are at preſent no man-eaters along the banks of the Marañon, there yet exiſt inland, particularly towards the north, and along the Yapura, tribes of Americans, who eat their priſoners. The majority of the new inhabitants of Pevas are ſavages, newly enticed from their woods, and yet unconverted to Chriſtianity; the neceſſary preliminary of debrutalizing them, a taſk of no ſmall difficulty, not having yet been completed.

On the preſent occaſion, it is not meet I ſhould expatiate on the manners and cuſtoms of theſe nations, and of others I met with, beyond what is neceſſary, from their relation to phyſics or natural hiſtory; I ſhall ſay nothing, therefore, reſpecting their dances, inſtruments, entertainments, arms, fiſhing, and hunting apparatus, their whimſical ornaments of bones of fiſhes and quadrupeds, run through their noſtrils and lips, or of their cheeks riddled with holes, which ſerve them for fixing in feathers of various hues; but anatomiſts will poſſibly ſee a theme for reflection in the monſtrous extenſion of the lobe of the lower part of the ear, of certain nations of this people, without any ſenſible diminution of its thickneſs occurring in conſequence of the prolongation. We were much ſurprized at ſeeing lobes of this deſcription, four or five inches in length, pierced through by a hole from ſeventeen to eighteen lines in diameter, a circumſtance which we were aſſured was far from uncommon. After firſt making a hole, they inſert in it a narrow cylinder of wood, the ſize of which is gradually augmented, until the pendant lobe is ſo much lengthened as to reach the ſhoulders. The chief decoration is a large noſegay or tuft of herbs and flowers, which is drawn through this hole, forming moſt uncommon pendants.

From Pevas, the laſt of the miſſionary ſettlements belonging to the Spaniards, to St. Pablo, the firſt deſcending the river pertaining to the Portugueſe *, and in which a deputation from the order of Mount Carmel officiates, the diſtance is reckoned ſix or ſeven days' journey; this diſtance we travelled in three days and nights. In this interval no dwelling is found on the banks of the river. Here begin the large iſlands formerly inhabited by the Omaguas, and here the bed of the river increaſes ſo much in breadth, that oftentimes a ſingle arm of it is from eight to nine hundred toiſes broad. As ſo wide an extent of ſurface preſents great room for the action of wind, the waves here run ſo high, as at times to overwhelm the canoes by which it is navigated. On our paſſage from Pevas to Saint Pablo, we experienced two ſtorms; but owing to the long experience of the Americans, it rarely happens they are ſurprized in the middle of the river, and no imminent danger is to be apprehended, except where they are prevented from ſeeking ſhelter at the frequent mouths of ſmall rivers or rivulets. Immediately after the ſubſidence of the wind, the current of the ſtream reſtores the ſurface to its priſtine tranquillity.

The greateſt peril in navigating this river ariſes from the frequency of uprooted trees ſticking in the ſand or mud, and concealed below the ſurface; we ourſelves, by ſtriking againſt one thus under water, on approaching the ſhore to gather ſome wood recommended as efficacious in the dropſy, were nearly overſet. To avoid ſuch accidents, the canoes are kept at a diſtance from ſhore, when, owing to the great depth, ſuch trees as are carried along by the current float, and, being ſeen from a diſtance, are eaſily avoided.

I ſhall not dilate on another accident, much leſs common, but always fatal, to which thoſe are liable who keep near the coaſt, I mean the ſudden fall of trees, whether owing to caducity, or the ground beneath them being gradually undermined by the waters. Many canoes with all their crews have by ſuch caſualties been entirely overwhelmed, though, unleſs on ſimilar occaſions, the drowning of a native is an occurrence never heard of.

On the immediate banks of the Maranon there is now no warlike tribes inimical to Europeans, all having either ſubmitted or withdrawn themſelves to the interior: ſtill,

* By reference to the letter of Mr. Godin, will be ſeen, that two ſettlements, ſince the voyage of M. de la Condamine, have been formed; the one Loreta, belonging to the Spaniards, *below* Pevas, the other Savatinga, belonging to the Portugueſe, *above* San Pablo, at the mouth of the river Yavari.

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in ſome places, it would be hazardous to ſleep on ſhore. But a few years back the ſon of a Spaniſh governor, whoſe father we knew at Quito, on deſcending this river, having ventured to land, was ſurpriſed in the woods, and maſſacred by ſavages from the interior, who by unlucky chance had ſtolen as far as the banks of the river. The fact was related to us by a companion of his who eſcaped the danger, and is now ſettled at one of the Portugueſe eſtabliſhments.

The miſſionary at St. Pablo, appriſed before-hand of our coming, had prepared for us a large canoe, pirogue, or brigantine, with fourteen rowers and a maſter. He moreover afforded us, in another canoe, a Portugueſe for a guide; indeed from him, as well as from the whole of the monks of his order, we received courteſies which made us for the time forget we were in the centre of America, five hundred leagues from countries inhabited by Europeans. At St. Pablo we firſt began to notice, in lieu of ruſtic chapels, and bowers for dwellings made of reeds, houſes and churches of ſtone, brick, and plaſter, neatly whitened. We were likewiſe agreeably ſurpriſed at meeting here amid the deſerts with native women all clad in Britany linen, coffers with locks and keys, iron utenſils, needles, knives, ſciſſars, combs, and a variety of little European articles imported hither annually by the natives, who purchaſe them in barter for the wild cocoa they gather on the banks of the river, and which they tranſport to Para. This commerce ſpreads among theſe people a ſemblance of eaſe and comfort which at firſt glance diſtinguiſhes the Portugueſe from the Spaniſh ſettlements higher up the river. The latter, as the inhabitants hold no intercourſe with their neighbours down the river, but draw every thing from Quito, whither they go ſcarcely once in a year, and from which they are effectually as much divided by the Cordilleras as by a ſea a thouſand leagues in breadth, in every particular exhibit the difficulty with which the conveniences of life are procured.

The canoes in uſe among the Portugueſe, and which we employed down the river from St. Pablo, are much larger, and far more convenient, than thoſe in which we navigated among the Spaniſh ſettlements. The trunk of a tree, which conſtitutes the whole body of the latter, ſerves only to frame the keel and bottom of theſe: in conſtructing a veſſel of this kind, the Portugueſe firſt ſplit the tree, and hollow it out with the axe; they afterwards open it by means of fire to give it breadth: but as the depth is conſequently diminiſhed by this proceſs, they add planks to the ſides, which are faſtened to ribs fixed in the keel-tree. The rudder in theſe canoes is ſo contrived, that the tiller in nowiſe inconveniences the cabin or little apartment faſhioned in the poop. Some of theſe veſſels are ſixty feet long, by ſeven broad, and three and a half deep; while others again are much larger, and are manned with forty oars: moſt of them have two maſts and ſails, a very material advantage on aſcending the ſtream under favour of the eaſt winds, which prevail from October to May. About four or five years ago, one of theſe brigantines of moderate ſize, decked over, and manned by a French trader and three mariners of the ſame nation, to the great aſtoniſhment of the inhabitants of Para, ventured well out to ſea, and in ſix days arrived at Cayenne from Para, a voyage, as will be ſeen, (from my following the common practice of the country and coaſting along ſhore, as beſt ſuited the object I had of taking a chart of the coaſt,) which I was two months in completing.

In five days and nights, not including about two days' halt at the intervening ſettlement of Yviratahá, Traquatuba, Paraguari, and Tefé, we completed our voyage from St. Pablo to Coari. Coari is the laſt of the ſix ſettlements of the Portugueſe Carmelite miſſionaries; the five firſt have riſen out of the wreck of the eſtabliſhment anciently formed by Father Samuel Fritz, and compoſed of a variety of nations, moſt of them emigrants

emigrants from their former abodes. The whole ſix are ſtationary on the ſouthern ſide of the river, on which the land lies higher, and is ſheltered from floods. Between Saint Pablo and Coari, we noticed the confluence with the Amazons of a number of large and beautiful rivers. From the ſouth, the chief are the Yutay, of ſuperior volume to the Yuruca, by which it is ſucceeded, and which, at its mouth, has a breadth of three hundred and ſixty-two toiſes; the Teſé, called by Father Acuña the Tapi, and the Coari, which ſome years back was regarded as a lake; the direction of all is from ſouth to north, their ſources in the mountains eaſtward of Lima and north of Cuſco. They are all of them navigable for a ſpace requiring ſeveral months to aſcend, proceeding from their mouths; and different American natives relate, that on the banks of the Coari, in the higher lands, they had obſerved an open country, flies and a number of horned cattle (the ſpoils of which they exhibited on their return), objects to which they were unuſed, and which prove that the early waters of theſe rivers take their courſe through countries widely different from thoſe they inhabit, and, no doubt, contiguous to the Spaniſh colonies of Upper Peru, where, as is known, the multiplication of cattle is very great. On the northern ſide, the Amazons likewiſe receives, between the two places adverted to, two large and famous rivers; the Yca, which, like the Napo, flows from the vicinage of Paſto, north of Quito, where the miſſionary eſtabliſhment of Franciſcans, called Sucumbios, is ſituate, and where the inhabitants call it Putumayo; the Yupura, the ſources of which are farther north, and which, in its early progreſs, is denominated the Caquetá, a name utterly unknown by the inhabitants at its different mouths, for it empties its waters into the Amazons by ſeven or eight branches, which leave the main trunk in ſucceſſion, and at ſuch diſtance the one from the other, that there is an interval of a hundred leagues between the point of entrance of the firſt and the laſt of them. The Americans on their banks give various names to theſe, which have cauſed them to be miſtaken for different rivers. Yupura is that by which one of the largeſt is known, and, following the practice of the Portugueſe, who have extended this name on aſcending it, I give the ſame denomination, not only to that branch ſo called by the natives, but likewiſe to the trunk itſelf. The whole of the country watered by theſe ſtreams is ſo low, that when the water in the Amazons is at its greateſt height, it is flooded, and admits the paſſage of canoes from one branch to the other, as well as from theſe branches to lakes in the interior. The banks of the Yurupa are in ſome places inhabited by thoſe ferocious nations of whom I have already ſpoken, who mutually deſtroy each other, and who, many of them, devour their captives. The trunk of this river, and indeed its branches, are frequented by few other Europeans beſides thoſe of Para, who reſort thither by ſtealth to purchaſe ſlaves. We ſhall advert again to the Yupura, in ſpeaking of the Rio Negro.

In theſe parts it was that Texeira, aſcending the river in 1637, received in exchange, from the ancient inhabitants of an American village, certain trinkets of a very fine gold which, aſſayed at Quito, proved to be twenty-three carats fine. This village he called The Golden. On his return, he planted a land-mark, and took poſſeſſion of it in the name of His Majeſty of Portugal, on the 26th Auguſt 1639, by an act which is ſtill preſerved in the archives of Para, in which it was ſeen by me. This act, ſigned by all the officers of his detachment, ſtates the poſition of the place to have been on high land oppoſite to the mouths of the Golden River.

Father Acuña declares that by different channels which he points out, there is a communication between the Yupura and the Y'quiary, the river which he calls the Golden. He adds, moreover, that the inhabitants of the banks of this river carry on traffic

traffic in this metal with the Manaos * their neighbours, and theſe again with the people of the banks of the Amazons, of whom he himſelf purchaſed a pair of golden ear-rings. Father Fritz in his journal ſtates, that in 1687, that is to ſay fifty years later than Father Acuña, he ſaw eight or ten canoes of Manaos, who, taking advantage of the floods, had proceeded from their abodes on the Yurubeſh, to trade with his flock on the north bank of the Amazons. He ſays that among other articles they brought ſmall plates of beaten gold, which theſe ſame Manaos received in exchange from the Americans of the Yquiary. All theſe places and rivers are laid down on the chart of this Father. So many concordant teſtimonials, proceeding all from reſpectable individuals, leave no room for doubting of the truth of theſe facts; and this, notwithſtanding the river, the lake, the gold mine, the land-mark, and even the Golden village itſelf, have vaniſhed like a fairy palace, ſo that on the very ſpots deſignated all memory of them is loſt.

Even in the time of Father Fritz himſelf, the Portugueſe, forgetting the title on which their pretenſions were founded, inſiſted that the land-mark raiſed by Father Texeira was placed higher up the river than the province of Omaguas, while, running into the oppoſite extreme, Father Fritz, a miſſionary ſubject of the crown of Spain, maintained that it was reared only in the neighbourhood of the river Cuchivara, lower towards the mouth by two hundred leagues. As is ever the caſe in diſputed matters, each party launched into extremes. As for the ſpot where the land-mark was planted in the Golden village, if the diſtrict in which the fourth Portugueſe miſſion is ſituate deſcending the river, be well examined, which is called Paraguari, and ſtands on the ſouth ſide of the Amazons, ſome leagues above the mouth of the Teſé, where I obſerved the latitude to be 3° 20′ S. it will be found to unite all the characteriſtics by which the ſite of the famous village is marked in the act of Texeira, dated at Guayaris, and in the relation of Father Acuña. The Gupura conſequently, one of whoſe mouths is oppoſite to Paraguari, will be the Rio de Ouro, or Golden river, the mouth of which noticed in the ſame act as being oppoſite to the village. Remains to know what have become of the Yurubeſh and Yquiari, to which Father Acuña gives the name of the Golden River, and to which you aſcend by the Tupura; the diſcovery of this coſt me ſomewhat more pains, I think however that I have reſolved the queſtion, and perhaps found the origin of the Parima Lake and the celebrated Dorado, but regularity and preciſion require the poſtponement of the diſcuſſion to the period of our treating of the Black River.

In the courſe of our navigation, we enquired of the people of various nations, if they had any knowledge of thoſe warlike women which Orellana pretended to have encountered; and if it were true they lived apart from men, receiving them but once a year, as is related by Father Acuña, in whoſe narrative this forms a part ſingularly curious, and well worthy of attention. We uniformly were anſwered, that they had heard their fathers ſpeak of ſuch things, and repeated many particulars which it were tedious to detail, but which tended to confirm the fact, that in this continent did exiſt a republic of women, who lived entirely ſeparate from the men, and who withdrew towards the north into the interior, either by the Black River or ſome other which flows on the ſame ſide into the Marañon.

* Father Fritz writes Manaves. In the French tranſlation of Acuna's narrative, the word is diſfigured to Mavagus. The Portugueſe at preſent write indifferently either Manaos or Manaus, pronouncing the word Manaoos.

An inhabitant of St. Joachim de Omaguas informed us that we ſhould probably find at Coari, an old man whoſe father had ſeen theſe Amazons, but arriving there, we found the individual alluded to was dead; we however converſed with his ſon, who ſeemed to be ſeventy years of age, and who was the chief of his tribe in the village. He aſſured us that his grandfather had in reality ſeen them paſs by at the entrance of the Cuchiura river, that they came from the Cayamé which falls into the Amazons on the ſouthern ſide, between the Tefé and the Coari, and that he had ſpoken with four of them, one of whom had an infant at the breaſt: he moreover told us the names of each of them, and added that on leaving Cuchiura, they croſſed the Great River and proceeded towards the Black River. I omit here ſeveral particulars related, unlikely in themſelves, but which at bottom were of little import. Below Coari, the natives every where related to us the ſame facts, varied indeed by circumſtances, but which agreed in the main.

The Topayos eſpecially, of whom in their place more expreſs mention will be made, as well as of certain green ſtones called Amazons' ſtones, relate that they inherit them from their forefathers who obtained them from the Cougnantainſecouima, a word ſignifying in their language, women without huſbands, among whom as they ſay they are found in abundance.

A native inhabitant of Mortigura, a miſſionary ſettlement in the vicinage of Para, offered to ſhow me a river, by ſailing up which I might, he aſſured me, aſcend to within a ſhort diſtance of the country at this very time inhabited by Amazons. This river is called Irijo, and ſince this converſation paſſed I ſailed by its mouth, which is between Macapa and the North Cape. According to this man, it is neceſſary, in order to reach the country inhabited by theſe Amazons, to travel for ſeveral ſucceſſive days weſtward, through woods, and croſs a mountainous country.

An old ſoldier once belonging to the garriſon of Cayenne, but now ſettled near the falls of the river Oyapoc, aſſured me that being one of a detachment ſent into the interior in 1726, for the purpoſe of exploring the country, they had penetrated into a part inhabited by the Amicouanes, a nation with long ears. The region inhabited by theſe people lies beyond the ſources of the Oyapoc, and in the neighbourhood of a river which falls into the Amazons. Among this nation he noticed that their wives and daughters wore necklaces formed of the green ſtones I have before mentioned, and enquiring whence they procured them, he was anſwered from the women without huſbands, whoſe territories were ſeven or eight days journey further towards the weſt. This nation of Amicouanes inhabit an elevated country at a diſtance from the ſea, where the rivers do not yet admit of navigation; it follows therefore that little likelihood exiſts of this tradition having paſſed hither from the inhabitants of the Amazons, with whom they have no intercourſe, the Amicouanes knowing of no other nations but thoſe their immediate neighbours, from among whom the Frenchmen belonging to the detachment ſelected their guides and interpreters.

It is neceſſary to obſerve, that not only the teſtimonials adduced, but alſo others paſſed by in ſilence, and thoſe of which mention is made in relations given in 1726, and ſince then by two Spaniſh governors * of the province of Venezuela, are alike in uniſon with reſpect to the fact of the exiſtence of Amazons; but what is no leſs deſerving of remark, while theſe different accounts deſignate the point of retreat of theſe American Amazons, ſome towards the eaſt, others the north, and others again the weſt, theſe ſeveral directions converge in one common center, that is, the mountains

* Don Diego Portales lately a reſident of Madrid, and Don Franciſco Torralva who was his ſucceſſor.

in the midſt of Guyana, a diſtrict to which neither the Portugueſe of Para, nor the French of Cayenne, have hitherto penetrated. Yet notwithſtanding theſe corroborations I muſt confeſs, that I ſhall give credence to the exiſtence of Amazons at this time, in the ſpot pointed out, with great reluctance, until more poſitive proofs be gradually afforded by the natives of the countries in the neighbourhood of the European colonies on the coaſt of Guyana; but this migratory nation will very poſſibly again have changed its reſidence; or, what to me appears a more probable event than any other, will have forſaken its antient habits, either in conſequence of being overpowered by ſome other nation, or of the maidens having at length loſt the averſion of their mothers to the company of men. Thus, though no remaining veſtige ſhould be found of this feminine republic, this would not yet prove that none ſuch had ever exiſted.

Sufficient on the contrary has been adduced to determine the hiſtorical fact of the exiſtence at one time, of a nation of women who had no men living with them. For the cuſtoms of this nation, and eſpecially that of cutting off one of their breaſts, as, truſting to the tales of American natives, Acuña relates; theſe are acceſſorial circumſtances, independent of the fact itſelf, and are probably exaggerations or inventions of Europeans informed of the practices attributed to the Amazons of Aſia, and which a fondneſs for the wonderful may have cauſed the natives of America learning theſe tales from them, to interweave in their narratives. In fact, it is ſtated, that the Cacique who admoniſhed Orellana to be on his guard againſt the Amazons, whom in the language of his country he denominated Comapuyaras, deſcribing them as but with one breaſt; and the native of Coari, on repeating the relation of his grand-father who ſaw four Amazons, one of them ſuckling her child, made no mention of this peculiarity, one of too remarkable a nature to have eſcaped obſervation.

I return to the principal fact. If, in refutation of the exiſtence of a nation of this deſcription, be alledged the want of probability, and the next to moral impoſſibility, that ſuch a feminine republic could be founded and ſubſiſt, I ſhall not attempt to ſupport it by inſtancing the antient Amazons of Aſia, nor the modern ones of Africa *, as what we read of theſe in antient and modern authors, is at beſt much mingled with fable, and open to diſpute; but ſhall confine myſelf to remarking that if ever ſuch a nation had exiſtence, there is moſt reaſon to conclude it muſt have been in America, where the frequent wanderings of the women, who often accompany their huſbands to war, and the hardſhips of their domeſtic life, might not only originate ſuch an idea, but likewiſe furniſh them with numberleſs opportunities of ſhaking off the yoke of their tyrants, of forming an independent eſtabliſhment, and of avoiding that vilifying condition of ſlavery, ſo little removed from that of beaſts of burthen, in which they had previouſly lived. Such a reſolution once formed, it would neither be more extraordinary, nor more difficult to put it in execution than ſimilar plans, in the European colonies of America; whence ſlaves, who weary of ill-treatment, or diſguſted with their condition, ſo frequently fly to the woods, either in bands, or where no aſſociates are found, alone; thus paſſing years, and oftentimes their whole lives, in the ſolitude of the unbounded wilderneſs.

I am aware that if not all, yet the majority of the natives of South America are liars, credulous, and prone to the marvellous; but none of theſe people could ever have heard of the Amazons of Diodorus, Siculus, and Juſtin, previous to the arrival of the Spaniards among them; but even then Amazons were ſpoken of as exiſting in

* See Father Labat, and the deſcription of Eaſtern Ethiopia by Father Juan de Santos, in Portugueſe, Liſboa, and the French tranſlation at Paris.

the center of the country, and have ſince been by nations who never had held commerce with Europeans. This is proved by the advice given by the Cacique to Orellana and his people, and by the traditions related by Father Acuña and Father Baraze *. Is it poſſible to conceive that ſavages, inhabiting countries ſo diſtant one from the other, ſhould have leagued together in inventing the ſame fact, and that this ſuppoſed fable ſhould be ſo uniformly and ſo generally adopted at Maynas, at Para, in Cayenne, and in Venezuela, among ſo many nations who comprehend not one the language of the other, and who have no intercourſe whatever?

Moreover, I have not enumerated the authors and travellers † of different nations of Europe,, who during more than two centuries, have continued to ſpeak of the exiſtence of Amazons in America, and of whom many pretend to have ſeen them, contenting myſelf with the adduction of new teſtimonies, which Mr. Maldonado and myſelf were enabled to collect on our way. A diſcuſſion on this queſtion may be ſeen in the preface to the firſt book of the Teatro Critico of Father Feijoo, a Spaniſh Benedictine, the work of his learned diſciple Father Sarmiento of the ſame order.

On the 20th of Auguſt we left Coari in a freſh canoe, and with another crew. The Peruvian language ſpoken by Mr. Maldonado and our domeſtics, and of which I had a ſlight knowledge, enabled us to hold converſe with the natives of the country, in all the miſſionary ſettlements of the Spaniards, in which it has been the ſtudy of theſe to make it the common language. At St. Pablo and at Tefé we had Portugueſe interpreters, who ſpoke the Brazilian tongue, introduced in like manner throughout the whole of the eſtabliſhments of the Portugueſe miſſions; but meeting with none at Coari, where, ſpite of our diligence, we failed in arriving ſufficiently in time for the great miſſionary canoe diſpatched to Para, we found ourſelves among the natives with whom we could hold no diſcourſe other than by ſigns, and the help of a ſhort vocabulary I had framed of queſtions in their language, but which vocabulary unfortunately could not lead to the comprehenſion of their anſwers. I was nevertheleſs enabled to gather ſome ſmall information from them, eſpecially the names of rivers. I likewiſe remarked that they were acquainted with a number of fixed ſtars, and that they gave the names of animals to different conſtellations. The Hyades, for example, or the head of the bull, they call Tapiera Rayouba, from a name which now ſignifies in their tongue, the bull's jaw. I ſay now, becauſe, ſince bulls have been imported from Europe into America, the Brazilians, as well as the natives of Peru, have applied to theſe animals, the name which either of them before in their maternal tongue gave to the elk ‡, the largeſt of the quadrupeds they knew before the arrival of Europeans.

The day after we left Coari, continuing our progreſs down the river, we paſſed on the northern ſide of one of the mouths of the Yupura, about a hundred leagues diſtant from the firſt; and the ſucceeding day, on the ſouth ſide, the mouths of the Purus, as it is now called, formerly denominated the Eucrivara, from the name of a village in its neighbourhood; in this village it was that the grand-father of the old Indian of Coari was viſited by the Amazons. The Purus is inferior in volume to none of the rivers which ſwell the current of the Marañon, and if the native Americans can be credited, is equal in breadth to even that river itſelf. Seven or eight leagues below the

* Lettres edifiantes et curieuses, tome x.

† Americo Veſpucci, Halderic Schmiedel, Orellana, Betrio, Sir W. Raleigh, Fathers Acuna, Artieda, Baraze, &c.

‡ This is a miſtake of Condamine; Tapiura, in the Brazilian tongue, does not ſignify an elk, but the Tapir, an amphibious animal about two feet high by forty inches in length, ſometimes wrongly termed a Hippopotamus. TRANS.

confluence of the two, at a ſpot where no iſlands were, and where the breadth of the Marañon was from one thouſand to one thouſand two hundred toiſes, while ſtemming the current with all ſail ſet, in order, as well as poſſible, to keep the boat ſtationary, I ſounded, but found no bottom with one hundred and three fathoms of line.

On the 23d we entered the Rio Negro, or Black River, another ſea of freſh water which flows into the Amazons on the northern ſide. The map of Father Fritz, who never entered the Rio Negro, and the laſt map of America by Deliſle, which copies that of Fritz, repreſent this river as having a courſe from north to ſouth while the fact is according to the relations of thoſe who have aſcended it, that its courſe is from weſt to eaſt, with a ſlight inclination towards the ſouth: that ſuch is its direction for ſeveral leagues above its confluence with the Amazons, I myſelf had ocular demonſtration, having obſerved that at this point its courſe is ſo nearly parallel to that of the Amazons, that, were it not for the tranſparency of its waters, which has earned it the diſtinction of the Black River, it might be miſtaken for a branch of the Amazons, ſeparated by an iſland. We aſcended two leagues up this river as high as to the fort built by the Portugueſe on its northern bank, at its narroweſt breadth, where I meaſured it and found it to be one thouſand two hundred and three toiſes in width. The latitude of the fort I obſerved to be 3° 9′ S. This was the firſt ſettlement we came to belonging to the Portugueſe on the northern ſide of the river Marañon. The Rio Negro has been frequented by the Portugueſe more than a century, and a great traffic for ſlaves is carried on, on its banks. On theſe there is conſtantly a detachment of Portugueſe from the garriſon of Para, encamped for the purpoſe of keeping the different American nations in awe, and of facilitating the ſlave-trade within the limits preſcribed by the laws of Portugal; and every year this flying camp called the Redemption Troop advances farther into the country. The Captain Commandant was abſent from the fort on our arrival, and I halted here but four and twenty hours.

On the whole of the banks of the Black River hitherto explored, are ſettlements of Portugueſe miſſionaries of the ſame order of Mount Carmel, we had conſtantly noticed in deſcending the Marañon, after quitting the ſettlements of the Spaniſh miſſionaries. On aſcending this mighty river for a fortnight, three weeks, nay even a longer time, it is yet found of ſtill greater breadth than at its mouth, owing to the multiplicity of iſlands and lakes that it forms. Throughout the whole interval of ſpace, its banks are elevated and never overflowed; they are leſs thickly covered with wood, and altogether the country preſents an aſpect widely different from that which borders the Marañon.

While at the fort on Rio Negro, we obtained more diſtinct information reſpecting the communication that exiſts between this river and the Oronooco, and, conſequently, between the latter and the Amazons. I ſhall not detail the various proofs of this fact which I gleaned with care on my voyage, (of which, the moſt material was the indiſputable teſtimony of a native American female, belonging to the Spaniſh miſſions on the banks of the Oronooco, of the Cauriacani nation, and the village of Santa Maria de Bararuma, with whom I held converſation, and who had been brought from thence in a canoe to Para,) theſe evidences being rendered ſuperfluous by that ultimately obtained. By a letter from the reverend father John Ferreyra, rector of the college of Jeſuits at Para, I have recently learnt that laſt year (1744), the Portugueſe belonging to the flying camp, after aſcending from river to river, at length met the ſuperior of the Jeſuits of the Spaniſh miſſions from the banks of the Oronooco, whom they brought back with them by the way they came, without once landing to their camp on the Rio Negro. The fact, therefore, of the connection of the two rivers, no longer admits of doubt, however contradicted by the recent author of *El Orinoco Iluſtrado*, (Madrid,

1741, p. 18.) long a miſſionary on the banks of the Orinooco, who, in 1741, regarded ſuch connection as impoſſible. He was certainly ignorant at that time, that his own letters to the Portugueſe commandant, and the almoner of the Redemption Troop, were forwarded by the very channel reputed fabulous to Para, where I ſaw the originals themſelves in poſſeſſion of the governor; but even this author himſelf, by what I learn from Mr. Bouguer, who ſaw them laſt year at Carthagena in America, is by this time completely undeceived.

The poſitive certainty of an exiſting communication between the waters of the two rivers, which the cited teſtimonials adduce, is a geographical fact the more important, from the circumſtance that, though this union be unequivocally marked on ancient maps, it has been generally ſuppreſſed in thoſe given by modern geographers, as if by common conſent, and treated as chimerical by thoſe who were ſuppoſed to have the beſt means of information. This, probably, is not the firſt example of theoretic conjecture, ſupported by plauſibility prevailing over facts atteſted by travellers of faith; nor the only inſtance in which criticiſm, too far extended, has ventured on denial, where juſtice allowed but of doubt.

Yet, where does this communication between the Oronooco and the Amazons take place? This we can learn with exactitude only when the court of Portugal ſhall think fit to publiſh a chart of the Rio Negro. In the meantime, I ſhall explain my ideas on this ſubject, grounded on a compariſon of the ſeveral accounts I collected in the courſe of my travels, with the collective narratives, memoirs, and maps, in manuſcript or in print, which I have been able to conſult, as well on the ſpots themſelves as ſince my return, and eſpecially with the draughts ſketched by my companion and myſelf in the preſence of, and after hearing the relation of the beſt informed, among thoſe of the miſſionaries, and others, who had aſcended and deſcended the Amazons and the Black River.

From theſe combined accounts, the one ſtrengthening and elucidating the other, I gather, that a ſmall village of native Americans in the province of Mocoa (eaſtward of that of Paſto, and in 1° N.) gives its name of Caqueta to a river on the banks of which it is ſituate. Deſcending lower, this river divides into three branches; one, the famous Oronooco, which mixes with the ſea oppoſite the iſland of Trinidad, takes a north-eaſtern direction; another, the ſame as lower down, is called Rio Negro by the Portugueſe, flows eaſtward with a gentle declination towards the ſouth; the third, the Yapura ſo often mentioned, has likewiſe an eaſtward courſe, but with a more ſouthern inclination than the preceding. I am uncertain whether or no this laſt river leaves the main trunk earlier than the two preceding, or whether it be merely an offſpring of the ſecond branch, the Rio Negro: in determining, I have only conjecture for my guide; but this, founded on ſubſtantial reaſoning, leads me to think the former of theſe poſitions moſt worthy of aſſent. However this may be, it is at leaſt plain that, if the Yupura be acknowledged as a branch of the Caqueta, (a name unknown on the banks of the Amazons) the whole of the relation of Father Acuña reſpecting the Caqueta and Yupura, becomes eaſy of comprehenſion, and accordant. It is well known, that the diverſity of names given to places, and eſpecially to rivers, by the various nations inhabiting their banks, has at all times occaſioned to geographers the greateſt perplexity.

In this iſland it is, or rather this new Meſopotamia, formed by the Amazons and the Oronooco, united by the Rio Negro, that the fabled Golden Lake Parima, and the imaginary city Manoa del Dorado, have long been ſought, a ſpeculation which has occaſioned the death of ſo many individuals, and, among others, of Sir Walter Raleigh,

leigh, a famous navigator, and one of the moſt ſhining characters England can boaſt, one alſo whoſe tragical hiſtory is ſo generally known. It is viſible from the expreſſions of Father Acuña, that, in his time, the exiſtence of this fanciful chimera was far from general diſcredit. I muſt here apologize for a ſlight geographical detail which too cloſely belongs to my ſubject to be omitted, and which may ſerve to unravel the origin of a romance, which nothing but a thirſt for gold could render credible: a town with roofs and walls of golden plates, a lake with ſands of gold!

Here it will be neceſſary to call to mind what before has been obſerved reſpecting the Golden River, and the previouſly quoted facts, extracted from the narratives of Fathers Acuña and Fritz.

The Manaos, according to the laſt author, were a warlike nation, the dread of all their neighbours. They long reſiſted the Portugueſe, with whom at preſent they are on friendly terms: many have ſettled among the tribes and miſſionary ſettlements on the Rio Negro; while ſome ſtill make long excurſions into the countries inhabited by roving tribes, and are ſerviceable to the Portugueſe in their ſlave-trade. Two of this nation it was who penetrated as far as to the Oronooco, and bore away and ſold to the Portugueſe the American Chriſtian female I have before mentioned. Father Fritz, in his journal, ſays expreſsly, that thoſe Manaos whom he ſaw trading with the inhabitants of the banks of the Amazons, and who procured their gold from the Yquiari, came from the banks of the Yurubeſh. By dint of inquiry, I learnt, that after five days' ſailing up the Yupura, a lake occurs on the right, which it takes a day to traverſe, and which is called Marahi, or Para-hi, a word ſignifying, in the Brazilian tongue, River Water; that from this lake, by dragging the canoe along where inſufficient water is found, but where, during the floods, there is depth enough for navigating the veſſels in uſe, one comes to another river called Yurubeſh, by which, floating with the current, a paſſage to the Black River is effected in five days; finally, that this laſt river, a few days' ſail above the confluence of the Yurubeſh, received another called Quiquiari, in which were many cataracts, and which proceeds from a mountainous country abounding in mines. Can it be doubted that theſe rivers are the ſame as are alluded to under the names of Yurubeſh and Yquiari by Fathers Acuna and Fritz? The latter, it is true, gives a different courſe to theſe two rivers, making the Yurubeſh a tributary to the Yquiari, and the latter to diſembogue its waters into a great lake in the interior; but, founding his relation on the teſtimonies of American natives alone, from whom it is difficult to obtain any clear or diſtinct account, eſpecially where the intervention of an interpreter is neceſſary, it is far from ſurpriſing, if errors ſhould occur; on the other hand, the names of theſe rivers are preſerved with but the ſlighteſt alteration. On the map of Father Fritz, a large aſſemblage of Manaos, which he calls Yeneſiti, is laid down as inhabiting this diſtrict. Of this I was enabled to obtain no ſatisfactory intelligence, which is not to be wondered at, when we reflect on the migrations and diſperſion of the Manaos' nation; at the ſame time, it ſeems highly probable that, from the capital of the Manaos, the city of Manao was invented. I lay no ſtreſs whatever on the poſſible derivation of Parima from Marahi or Para-hi, but confine myſelf to authentic data. The Manaos had a conſiderable aſſemblage or town in this diſtrict; they had in their vicinage a great lake, nay ſeveral lakes, for collections of water are very common in a country ſo low as this, and ſo much liable to inundations. The Manaos, moreover, brought gold from the Yquiari, and flattened it into ſmall plates: theſe are facts well eſtabliſhed, and which may have been exaggerated ſo as to have given birth to the fabulous city of Manao and the Golden Lake. If the caſuiſt ſhould dwell on the diſproportion between the ſmall plates of gold of the Manaos and the roofs of golden tiles

tiles of the city of Manao, the particles of gold waſhed from mines by the Yquiari, and the golden ſands of the Parima lake, he muſt yet allow, great as it really is, that cupidity and prejudice, on the part of European adventurers, determined on finding what they fancied had exiſtence; and, on the part of the native Americans, intereſted in ridding themſelves of unwelcome gueſts, a genius prone to exaggeration and lies, that theſe, I ſay, are media ſufficient to account for the aſſimilation of objects thus widely diſſimilar in themſelves, and the change and diſfigurement of facts, ſo as not to be known for the ſame. The hiſtory of the diſcoveries in the new world furniſh more than one inſtance of metamorphoſes equally ſtrange.

I poſſeſs an extract from the journal and a copy of the map of Nicolas Hortſman, a native of Hildeſheim, probably the laſt traveller who attempted a diſcovery of theſe viſionary incognitæ. They were given to me at Para by the author himſelf, who, in the year 1740, aſcended the river Eſſequibo, whoſe mouth is on the ocean between the rivers Surinam and Oronooco. After having traverſed lakes and vaſt tracks of land, now dragging, now carrying his canoe, and enduring in his excurſion incredible toil and fatigue, but without any traces of the object of his ſearch, he at length came to a river with a ſouthern courſe, by which he deſcended into the Rio Negro on its northern ſide. The Portugueſe have given it the name of Rio Branco, or White River; and to the river Eſſequibo, the Dutch have attached that of Parima; doubtleſs, becauſe of their ſuppoſing it to proceed from the lake of that name; and, for a ſimilar reaſon, one of the rivers of Cayenne has a like denomination. It may be conceived by ſome, that this Parima lake was one of thoſe croſſed by the adventurer laſt noticed, but in any of them, he found ſo little that correſponded with the idea he formed of the Golden Lake, as to be far, in my opinion, from adding his ſanction to ſuch a conjecture.

The cryſtalline waters of the Black River had barely loſt their tranſparence by blending with the pale and muddy current of the Amazons, before, on the ſouth ſide, we drew near the firſt mouth of another river, ſcarcely ſecondary to the preceding, and no leſs reſorted to by the Portugueſe. By them it is called Rio de Madera, or the Wood River, poſſibly from the abundance of trees brought down by its current after floods. Some idea of the length of its courſe may be entertained, from the fact of its having been aſcended in 1741 as high as to the vicinage of Santa Cruz de la Scirra, an epiſcopal ſee of Upper Peru, in latitude 17½° ſouth *. In its ſuperior part, where the miſſionary ſettlement of Moxes is eſtabliſhed, this river is called Mamore; of its courſe, in this part, the Jeſuits of Lima publiſhed a chart in 1713, which is given in Book XII. of *Lettres Edifiantes et Curieuſes*; but the earlieſt ſource of the Madera is in the neighbourhood of the mines of Potoſi, but little diſtant from that of the Pitcomayo, a tributary of the great river De Plata.

The general breadth of the Amazons below the two laſt noticed rivers, the Rio Negro and the Madera, is about a league; where iſlands occur, its breadth from bank to bank is two to three leagues; but in time of the greateſt height of its waters, the widely ſpreading deluge has no limits. At this point it is that the Portugueſe of Para give the name of Amazons to the river; higher up, it is known by no other than that of O Rio de Solimoes, the River of Poiſons, a diſtinction which probably originated from the envenomed arrows before noticed, the moſt common weapon of the inhabitants of its ſhores.

* The whole courſe of this large river exceeds 1,700 Britiſh miles, during more than 1,500 of which it is navigable; and the greater part of this length it is of conſiderable depth.

On

On the 28th we paſſed the Jamundas on the left. Father Acuña calls this river Cunuris, and ſtates it to be that in which Orellana was attacked by the warlike women whom he calls Amazons. A little below, we landed on the ſame ſide oppoſite to the Portugueſe fort Pauxis, where the bed of the river is narrowed to a breadth of nine hundred and five toiſes. The tide riſes thus high, at leaſt the waters riſe and fall viſibly every twelve hours, and each day at a later period than on the preceding, as upon the coaſt. As the higheſt riſe of the tide at Para is ſcarcely ten feet and a half, as I aſcertained by new obſervation, it follows that from Pauxis to the ſea, a diſtance of upwards of two hundred leagues, or, according to Father Acuña, three hundred and ſixty, the fall of the river is not more than ten feet and a half; this well agrees with the height of the mercury in the barometer which, at Fort Pauxis, fourteen toiſes above the level of the water, was about one and a fourth line higher than at Para on the ſea.

It will readily be conceived that the flow of tide will not be experienced at the ſtrait of Pauxis, more than two hundred leagues from Cape North at the mouth of the Amazons, until many days after its occurrence at that cape, inſtead of in five or ſix hours, the ordinary duration of the flux of the ſea. In fact, between the coaſt and Pauxis, there are a ſcore of points which mark, as I may ſay, the diurnal progreſs of the tides in aſcending the river. At all theſe different points the height of tide is noticed at the ſame inſtant as on the coaſt; thus, ſuppoſing, for more clear explanation of what I mean to expreſs, that the interval between each two of theſe points were twelve leagues, there would be high water within ſuch interval at every intermediary hour; that is to ſay, at every league aſcending from the ſea, one hour later than at the preceding. The ſame, in courſe, takes place with reſpect to low water. Theſe alterations, however, of ebb and flow, as before remarked, are conſtantly and naturally ſubject to the ſame retardment every day as on the coaſt. A ſimilar progreſſion of undulatory tides, in all probability, prevails at open ſea, making the period of high and low water gradually later in proportion to the diſtance of each ſpot from the point where the firſt riſe and fall of the ſea takes place till the breaking of its waves on the ſhores. The graduation of the decreaſe of velocity with which the tide flows on aſcending the river; two oppoſite currents obſerved on the flux of tide, the one at the ſurface, the other at a certain depth; two others, one of which runs up along the margin of the river and increaſes its ſpeed, while the other, in the middle of the river, runs down, and is ſtayed in its progreſs; and, finally, again two other oppoſite currents, which frequently meet in the vicinage of the ſea in the natural croſs-channels, where the flux at one inſtant enters either extremity; all theſe facts, of which I am uncertain whether ſome of them have ever been duly noticed, and the different combinations of them, together with divers other accidental circumſtances relating to the tides, that in a river in which they aſcend to a greater diſtance in all probability from the ſea than in any other in the world, are doubtleſs more numerous and more varied than in any part; would aſſuredly give room for curious, and perhaps altogether, novel remarks; but, in order to leave little to conjecture, they would require a ſucceſſion of minute obſervations, a long reſidence at each ſpot, and a delay, which but ill agreed with the reaſonable anxiety I experienced of reviſiting France, after an abſence already of nearly nine years' duration. I did not omit, however, to pay attention, in the neighbourhood of Para and the North Cape, to a phenomenon incident to the ſpring-tides, of greater ſingularity than any to which I have alluded, and to which, at due ſeaſon, I ſhall advert.

We were received at Pauxis, as we had every where elſe been, from the inſtant of our entering the territories of Portugal. The Commandant, Captain Manuel Maziel Parente,

Parente detained us four days at the fort, and again another day at his country-houſe; and afterwards accompanied us ſix or ſeven days as far as to the fortreſs Curupa, half way to Para. The poſitive orders of His Portugueſe Majeſty, favourable in extreme to my ſafety and comfort, were known at every ſtation before I arrived, and inſured the moſt obliging treatment, not to myſelf alone, but to all who accompanied me; a treatment continued through the whole of my journey to Para, for which I am under the higheſt obligations to a miniſter who loves the ſciences, who duly values their utility, and whoſe careful vigilance was ever on the alert to provide, during our long ſojourn at Quito, for all the wants of our numerous companions.

In leſs than ſixteen hours, we arrived oppoſite the fortreſs of Topayos, at the entrance of the river of ſimilar name; this again is a river of the firſt order; it deſcends from the mines of Brazil, croſſing unexplored countries inhabited by wild and warlike nations, whom the miſſionary Jeſuits are employed in civilizing.

The town of Topayos has riſen out of the ruins of Tupinambara, formerly ſituate in a large iſland at the mouth of the river Madera; and its inhabitants are nearly all that remains of the brave Tupinambos, but two centuries back the lords of Brazil, and through which their language yet prevails. For their hiſtory and long peregrinations, the narrative of Father Acuña may be conſulted.

Among the Topayos thoſe green ſtones are more common than with any other people, known by the name of Amazonian, of unknown origin, and which formerly were in high requeſt for their ſuppoſed efficacy in curing the ſtone, niphritic colic, and epilepſy, and on which a treatiſe, under the title of *Pierre Divine*, or the Divine Stone, has been publiſhed. Theſe ſtones differ nothing in colour and in hardneſs to oriental jade; and as they reſiſt the file, it is inconceivable how the ancient Americans were enabled to faſhion them as they did into the ſhape of various animals. It was no doubt the difficulty of ſolving this problem which gave origin to a fable ſo improbable in itſelf as ſcarcely to merit refutation. It was ſeriouſly aſſerted, that this ſtone was nothing elſe than the mud of the river, which, when recently taken from its bed, might be moulded into any form, and which obtained its extreme hardneſs by expoſure to the air. Yet were this marvel granted, reſpecting the fallacy of which credulity was not undeceived but by ſucceſsful experiment alone, ſtill would the lapidary be poſed to anſwer a queſtion of ſimilar nature. This queſtion is, by what means were wrought thoſe rounded and poliſhed emeralds, pierced with two conical holes diametrically oppoſite one to the other, which are ſtill to be found in Peru, on the banks of the river St. Jago, in the province of Eſmeraldas, forty leagues from Quito, and which are accompanied by divers other monuments of the ingenuity of the ancient inhabitants. As for the green ſtones, they every year become more ſcarce, as well owing to the unwillingneſs of the American natives, by whom they are highly prized, to part with them, as to the great number of them which have found their way to Europe.

The 4th, we began to diſtinguiſh the mountains in the north ten or twelve leagues inland. To us who, from leaving the Pongo, had navigated two months without ſeeing one ſingle hill, this ſpectacle was a novelty. What we ſaw were the anterior hills of a long chain of mountains extending from weſt to eaſt, the loftieſt ridges of which mountains divide the ſpring heads of the ſtreams which irrigate the northern plain of the Amazons, and thoſe of Guyana. To theſe mountains it was, according to tradition in the country, that the Amazons withdrew. Another tradition, no leſs general, but of the truth of which leſs conteſtible evidence is ſaid to be afforded, reputes theſe mountains to abound in mines of various metals. This laſt ſtatement, however, though of a nature

to excite the attention of a greater number of inquiſitive perſons, is, nevertheleſs, no better ſubſtantiated than the other.

On the evening of the 5th, I noticed, at ſun-ſet, that the variation of the compaſs was $5\frac{1}{2}°$ eaſt. Finding no ſpot favourable to my landing, I made my obſervation on the trunk of an uprooted tree driven by the current and fixed againſt the ſhore. We had the curioſity to meaſure the length of this tree, which, from the roots to the ſhooting of the branches, meaſured eighty-four feet, and, in circumference, notwithſtanding it was withered and ſtripped of its bark, twenty-four. By this tree, thrown in our way by chance; by the great dimenſions of the pirogues of which I have had occaſion to ſpeak, hollowed from one ſingle trunk; and by a table without joint, of a hard wood that received an admirable poliſh, from eight to nine feet long by a breadth of four and a half, which we afterwards ſaw in the houſe of the governor of Para, ſome idea may be formed of the height and beauty of the timber that grows on the banks of the Amazons, and many of the rivers by which its volume is increaſed.

At night-fall, on the 6th, we left the principal trunk of the Amazons, oppoſite to fort Para, newly erected by the Portugueſe on the northern bank, on the ruins of an old Dutch fort. There, to avoid the ſtrong current at the mouth of the river Xingu, which had proved deſtructive to many canoes, we entered a natural canal communicating with the laſt-mentioned rivers. The iſlands in the mouth of the Xingu, which form a number of channels, prevented my meaſuring by triangles its actual breadth; but as near as it can be determined by the eye, it is not leſs than a league. It is the ſame river which Father Acuña, from what he learnt of natives ſpeaking a different language to thoſe now inhabiting its banks, (and here it is fit I ſhould obſerve, that in the different tongues ſpoken, rivers are often known by different names,) calls Paranaiba, and Father Fritz, in his chart, Aoripana; Xingu is the American name of a village, the ſeat of a miſſion, ſome leagues up the river. It deſcends, like the Topayos, from the mines of Brazil; ſeven or eight days' journey up this river is a cataract, which, however, does not prevent its being navigable to a height, whither it requires two months to ſail up. Its banks abound in two ſpecies of aromatic trees, the one called Cuchiri, the other Puchiri. The fruit of them, about the ſize of a Spaniſh olive, reſembles in flavour the nutmeg, and, grated, is uſed as a ſubſtitute for that ſpice. The bark of the firſt has the ſmell and taſte of the clove, which, by the Portugueſe, is termed Cravo; whence the French of Cayenne, by corruption, apply to the tree which bears this bark the term *Bois de Crabe*, or Crab-tree. Were it not for the ſpices obtained from the eaſt, this would be more known in Europe. In many ſpirituous liquors made in Italy and England, it forms a component ingredient.

After the union of the Xingu with the Amazons, the breadth of this is ſo conſiderable, that but for the continued ſucceſſion of great iſlands which interrupt the ſcan of the eye, the ſpectator on the one bank would be unable to deſcry that oppoſite to him *. At this place we found ourſelves happily entirely freed from the muſquitoes, gnats, and flies of every ſpecies, which had been our greateſt torment throughout the whole of our voyage, a torment indeed ſo intolerable, that the natives themſelves never travel without a cotton awning to protect them from their ſtings during the night. At certain ſeaſons one is entirely enveloped in ſome parts, eſpecially in the country of the Omaguas, by clouds of theſe inſects, whoſe ſtinging cauſes extreme itching. It is a

* If leſs than eleven Engliſh miles in breadth, the banks on one ſide muſt be viſible from the other, allowing them to be each eighteen feet above low water-mark, and the eye of the obſerver five feet from the bank. TRANS.

well-

well-known fact, and highly worthy of remark, that from the mouth of the Xingu they no longer are ſeen, or at leaſt are very rare on the right bank of the Amazons, while the oppoſite bank continues ſtill infeſted by them. After reflecting on this ſingularity, and examining the ſites of theſe ſpots, I conceived this difference to be the conſequence of the change in the courſe of the river at this place; it riſing here to the north, the eaſt wind, which almoſt conſtantly prevails, muſt neceſſarily, coming from ſea, drive theſe inſects to the weſtern ſhore.

On the 9th, in the morning, we arrived at the Portugueſe fortreſs of Curupa, built by the Dutch when maſters of the Brazils. The King's lieutenant received us with extraordinary marks of diſtinction. The three days of our ſtay were one continued gala, in which was diſplayed the moſt profuſe magnificence, ſuch indeed as was little to be expected in this country. Curupa is a ſmall Portugueſe town, in which are no other natives than ſuch as are ſlaves to the inhabitants. It is pleaſantly ſituate on high ground, on the ſouth-eaſtern bank of the river, eight days' ſail from Para.

From Curupa, where the ebb and flow is very perceptible, boats move only with the tide; at a few leagues below, a ſmall arm of the Amazons, called Tagipuru, leaves the main channel, which has a northern courſe, and, taking an oppoſite direction towards the ſouth, tends to form the great iſland Joanes or Marayo, disfigured in all maps. From its extremity on this bend it changes its courſe, and, forming a ſemicircle, riſes north by eaſt, and is ſhortly loſt in an eſtuary which receives ſeveral large rivers one after the other. The moſt conſiderable of theſe is: firſt, the Rio de dos Bocas, or the Two-mouthed Rivers, formed of the union of the Guanapu and Pacujas; it is two leagues wide at its mouth, and is laid down in all the old maps, as well as the Laet, under the name of the Para river; the ſecond the Tocantin, of ſtill greater width than the preceding, allows navigation to a height which it requires ſeveral months to attain, and, like the Topayos and the Xingu, has its origin among the mountains of Brazil, abounding in mines; finally, the Muju, which, two leagues up from its mouth I found ſeven hundred and forty-nine toiſes in breadth, and on which I ſaw a frigate belonging to His Portugueſe Majeſty going up under full ſail, in order to take, many leagues higher up, certain rare and curious wood, the growth of its banks. On the eaſtern bank of this river it is that Para is ſituate, juſt below the mouth of the river Capim, which, ſhortly before its diſemboguing itſelf into the eſtuary, receives another called the Guama. Nothing leſs than the ſight of a correct map is requiſite to furniſh a diſtinct idea of the ſite of this city at the concourſe of ſo many rivers, and prove that it is not without reaſon its inhabitants are far from conceiving themſelves placed on the banks of the Amazons, of which river it is poſſible that not a ſingle drop bathes the walls of their city; for as well might we ſay that the Loire flows by Paris, becauſe that river communicates, by the canal of Riare, with the Seine. Indeed there is abundant ground for ſuppoſing, that the immenſe quantity of running water which ſeparates the Terra Firma on which Para ſtands from the iſland Joanes, would experience no ſenſible diminution, though the communication between it and the Amazons ſhould be interrupted by the cloſure, or deviation of the narrow branch of this river, which comes, as it were, to take poſſeſſion of all theſe rivers before recited, by uſurping their titles. This, however, if ſuch be choſen, may remain a queſtion; and that I may accommodate myſelf to the common opinion, I ſhall not object to ſtating, that Para ſtands on the eaſtern mouth of the Amazons; all that is required of me being, to ſtate in what light this is to be underſtood.

On my paſſage from Curupa to Para, without being conſulted on the courſe I choſe, I was conducted between iſlands, by narrow and crooked canals, from one river to another,

other, for the purpoſe of avoiding the peril attendant on paſſing their mouths. What enſured my ſafety, and had been gratifying to another traveller, was far from ſatisfactory to me, whoſe chief object was the ſtructure of my chart; in order, mid this tortuous labyrinth of iſlands and innumerable canals, to preſerve the thread of my rout, while it largely multiplied my toil, exacted redoubled attention.

I have hitherto ſaid nothing of the ſingular fiſh which the Amazons produces, nor of the rare animals found on its banks. This portion of natural hiſtory alone would furniſh materials for an entire work, and the excluſive ſtudy of it would not only require a voyage expreſsly undertaken for the purpoſe, but a traveller whoſe attention ſhould be called to no other object. I ſhall merely enumerate ſome of the moſt ſingular.

At St. Pablo de Omaguas I deſigned, from nature, the largeſt freſh-water fiſh that is known, to which the Spaniards and Portugueſe have given the name of the Sea-cow or Sea-bull; which, however, muſt not be confounded with the ſeal or ſea-calf. The one in queſtion browzes the graſs of the banks of rivers, and in its fleſh and fat bears ſome reſemblance to veal. The female has teats, with which it ſuckles her young. Some writers have increaſed the ſimilitude ſuppoſed between it and the bull, by attributing horns to it, which nature, leſs generous than they, has denied. It is not amphibious, properly ſpeaking, as it never entirely quits the water; and, indeed, is unable ſo to do, having only two fins near the head, in ſhape of ſmall wings, about ſixteen inches long, which ſerve it for hands and feet, and, conſequently, merely raiſes its head out of water to reach the graſs it feeds on. The one I deſigned was a female; its length was ſeven and a half Paris feet, and its greateſt breadth two: I have ſince ſeen others of ſuperior ſize. The eyes of this animal are diſproportionate; they are round, and only three lines in diameter; the opening of the ears is ſtill ſmaller, and can better be compared to nothing than a hole made with a pin. This fiſh, by ſome, has been reckoned peculiar to the Amazons, but it is equally common in the Oronooco; it is likewiſe, though leſs frequently, found in the Oyapoc, and in many other rivers of Cayenne, and off the coaſt of Guyana, and very probably in other parts. It is the ſame animal in genus, though I think of different ſpecies, that is called the Lamentin, in Cayenne, and in the French iſlands of America. It is not met with in the open ſea, and is rare near the mouths of rivers; but it is found inland at more than a thouſand leagues from the ſea in the major part of the great rivers which fall into the Amazons, the Gullaga for example, the Paſtaca, &c. In the Amazons itſelf, it is only ſtopped in its upward courſe by the Pongo of Borja; but this barrier is no obſtacle to another fiſh called Mixano, as diminutive as this is large, many of them not exceeding the length of a finger. This fry annually proceed to Borja, at the commencement of the ſubſiding of the waters, about the end of June. They preſent nothing ſingular, if we except the ſtrength they exhibit in ſtemming and ſwimming againſt the current. As the narrow bed of the river neceſſarily collects them in great number near the ſtrait, they are ſeen croſſing in ſhoals from one bank to another, and, alternately on either ſide, overpowering the violence with which the waters are impelled through this ſtrait. When the waters are low, they are taken by hand from the hollows in the rocks of the Pongo, where they reſt to reſume their ſtrength, and which ſerve them as ſo many ladders in aſcending.

In the neighbourhood of Para I ſaw a kind of lamprey, the body of which, like that of the common ſpecies, is pierced by many openings, but, at the ſame time, it poſſeſſes the ſame faculty with the torpido; whoever preſumes to touch it with the hand, or even with the end of a ſtick, experiences a painful numbneſs in the arm, and a

ſhock, which is ſaid at times to be ſo powerful, as to lay one proſtrate. Of this laſt aſſerted fact I had no ocular proof. M. de Reaumur has unfolded the myſtery of the ſecret ſpring which occaſions this wonderful effect in the torpido.

The turtles of the Amazons are much in eſteem at Cayenne, being reckoned the moſt delicious that are known. So numerous are they on this river, of different ſpecies and of various ſize, that they alone with their eggs would yield ample nouriſhment to the inhabitants of its banks. Tortoiſes or land turtle likewiſe abound, called, in the Brazilian tongue, Tabutis; theſe, at Para, are preferred to the other or river turtle. Either, but eſpecially the latter, will live for months together out of the water, and without any viſible nouriſhment.

Indulgent nature ſeems, by her prodigality, to favour the general idleneſs of the Americans, and anticipate all their wants: the lakes and marſhes which occur at every ſtep on the banks of the Amazons, and, occaſionally, at conſiderable diſtance inland, are filled with fiſh of every kind at the time of the annual inundations; and when the waters fall, they remain in theſe as in ſo many natural reſervoirs, where they are caught with the utmoſt eaſe.

In the province of Quito, in the different countries traverſed by the Amazons, at Para, and in Cayenne, a variety of plants are found, which differ from all known in Europe; the leaves or roots of which, thrown into the water, have the faculty of intoxicating fiſh. While thus torpified, they float on the water, and are taken with the hand; by means of theſe plants, and by weirs, which they place at the mouth of ſmall ſtreams, the Americans catch as many fiſh as they pleaſe: to preſerve theſe, they ſmoke them in riddles very rarely, uſing ſalt for this purpoſe; the inhabitants of the miſſion of Maynas, however, obtain rock-ſalt from a mountain in the neighbourhood of the Gullaga; and thoſe ſubject to Portugal, from Para, whither it is brought from Europe.

Crocodiles are very common through the whole courſe of the Amazons, and even in moſt of its tributaries. They are ſometimes twenty feet in length, and poſſibly more. In the river of Guyaquil, I ſaw many before I embarked on the Amazons. They remain for hours and days together ſtretched on the mud, expoſed to the ſun, and motionleſs, and reſemble trunks of trees or long pieces of timber covered with rough and dry bark. As thoſe of the banks of the Amazons are leſs purſued, they are conſequently leſs fearful of man. During the floods, they ſometimes enter the cabins of the Americans, and more than one example has occurred, of this ferocious animal having borne away a man from his canoe in ſight of his companions, and devoured him without the poſſibility of reſcue.

The moſt dangerous adverſary of the crocodile, and, perhaps, the only one that dares encounter it, is the tiger. A combat between theſe two animals muſt preſent a ſingular ſpectacle, but ſuch a fight muſt neceſſarily be the reſult of hazard, and very uncommon. The Americans give this account of it. When the tiger approaches the river's brink to quench its thirſt, the crocodile raiſes its head to ſeize him, as on ſimilar occaſions it attacks ſteers, horſes, mules, and whatever animal preſents itſelf; the tiger then ſtrikes its talons into the eyes of the crocodile, the only undefended part; but this diving into the water carries the tiger with it, which ſuffers rather to be drowned than forego its prey. The tigers, an animal common to all hot countries covered with wood, which I ſaw in America, differ neither in ſize nor beauty from thoſe of Africa. Of them there is a one ſpecies with a brown ſkin without ſtripes. The Americans are very expert in combating the tiger with a ſpontoon or half-pike, their common travelling weapon.

In

In the province of Quito only, and no where on the banks of the Amazons, did I meet with the animal called by the Peruvians Puma, the lion of the American Spaniards. I cannot determine whether it be deſerving the name; the male has no mane, and is much ſmaller than the lions of Africa. I never ſaw any but ſuch as were dead and ſtuffed.

It would be no ſubject of wonder if bears, common but in cold countries, though found on ſeveral of the mountains of Peru, ſhould be unknown in the woods of the Marañon, of which the climate is ſo different; nevertheleſs, in this part I have heard mention made of an animal called Ucumari, a name that in the Peruvian tongue deſignates the bear, though I never was able to convince myſelf of its identity to that beaſt.

The elk, which is found in ſome of the wooded diſtricts of the Cordilleras of Quito, is not uncommon in the woods of the Amazons, nor in thoſe of Guyana. I give the name of elk here to the animal known to the Spaniards and Portugueſe by the name of Danta, by that of Uagra to the Peruvians, and Tapiira to thoſe of Braſil, and which is called in the Galibi tongue on the coaſts of Guyana Maypouri. As the continent in the neighbourhood of the iſland of Cayenne forms a part of the continent traverſed by the Amazons, and adjoins the plain watered by that mighty river, in each country is found moſt of the animals common to the other.

I deſigned on my way among the Yameos, a ſpecies of weazel which is eaſily tamed: I was unable to pronounce or write the name by which it was called, but I ſaw one again in the vicinage of Para, when it was termed Coati, in the Brazilian tongue. This animal is mentioned by Laet.

Monkeys are the moſt common game, and that moſt prized by the Americans of the Amazons. In the courſe of my long voyage down this river I ſaw ſo many, and heard ſpeak of ſuch a variety of ſpecies, that the mere enumeration of their names would take up much time. There are ſome as large as a grey-hound, and others ſmall as a rat; I do not mean in this compariſon to allude to the diminutive ſpecies called Sapajou, but others much ſmaller, difficult to tame, with long ſhining hair moſtly of a cheſnut colour, and ſometimes ſpotted with fawn. They have tails twice the length of the body, a ſmall ſquare head, ſalient ears, pointed like thoſe of the cat and dog, and not like thoſe of other monkeys, between whom and theſe there is little reſemblance, as theſe have rather the look and port of a lion. At Maynas they are called Pinches, in Cayenne Tamarins. I had many, but was unable to preſerve them: they are of the ſame ſpecies called in the Brazilian tongue Sahuins, in French Sagoins; Laet ſpeaks of them, citing L'Ecluſe and Lery. That preſented to me by the governor of Para, was the only one of its ſpecies ever ſeen in the country; the hair of its body was ſilvered, and a beautiful auburn; that of the tail, a ſhining cheſnut approaching to black. It had another ſingularity ſtill more remarkable; its ears, cheeks, and mouth, were of a vermillion, ſo lively as ſcarcely to be taken for a work of nature.

I kept it a whole year, and it was ſtill living while I was writing this deſcription almoſt within ſight of the French ſhore, to which country I promiſed myſelf the pleaſure of bringing it alive; but, notwithſtanding every precaution I took to guard it from cold, probably owing to the rigour of the ſeaſon, it died. As I had no convenience on board to dry it in the manner recommended by Mr. Reaumur, all I could do was to preſerve it in ſpirits; but even thus it will probably exhibit ſufficient to ſhew no exaggeration in the deſcription I have given.

This country produces many other rare animals, but moſt of them have already been deſcribed, and are found in divers parts of America, for example, various ſpecies of

boars

boars and rabbits, the pac, the ant-eater, the porcupine, the ſloth, the tatoo or armadillo, and numerous others, of which ſome were drawn by me, while of the reſidue the repreſentations taken by M. de Morainville were left in the cuſtody of Mr. Godin.

It is by no means aſtoniſhing that in countries ſo hot and humid as that of which I treat, ſerpents and ſnakes of every kind ſhould be common. I have read, but in what relation I forget, that none of thoſe of the Amazons are poiſonous; what however is more certain, while many of them are perfectly innocent, of a number of others the bite is almoſt conſtantly mortal. One of the moſt dangerous is the rattle-ſnake, remarkable by the variety and livelineſs of its colours; but the moſt rare and ſingular of all is a large amphibious ſerpent, from twenty-five to thirty feet long and more than a foot thick, according to report; it is called Tacu Mama, or the Mother of the Water by the Americans of Maynas, and commonly inhabits the large lakes formed by the river-waters after floods. Facts are related reſpecting them of which not even the fancied evidence of my ſenſes could prevent me from doubting, though I ſhould ſee them, and which I merely venture to repeat from the ſerious aſſurance of their authenticity of the author of El Oronooco Iluſtrado before quoted. Not only as affirmed by the Americans, does this amazing ſerpent ſwallow a goat whole, but alſo by its breath irreſiſtibly attracts thoſe animals towards it, which it devours. Various Portugueſe of Para endeavoured to perſuade me of the verity of tales equally improbable, for example, of another immenſe ſnake which kills men with its tail. I ſuſpect this laſt to be of the ſame ſpecies found in the woods of Cayenne. There, experience ſhews, that notwithſtanding its teeth are well calculated to excite terror, a man may be bitten by it, and preſerve the marks of its fangs without any dangerous conſequence: of this reptile I brought home two ſkins, one of which, dry as it is, meaſures fifteen feet long by more than one in breadth. Doubtleſs others of ſtill larger dimenſions have exiſtence. I am indebted for theſe ſkins, and various other natural curioſities to the Jeſuits of Cayenne, Mr. de Lille Adam commiſſary of the navy, Mr. Arthur King's phyſician, and ſeveral of the officers belonging to the garriſon.

The worm called by the Maynas, Suglacuru; and at Cayenne, Macaque; grows in the fleſh of men and animals to the ſize of a bean, and occaſions intolerable anguiſh. I deſigned the only one I ſaw, and have the worm itſelf preſerved in ſpirits of wine; it is related to originate from the egg of a ſpecies of gnat or muſquito, but of this there is hitherto no certainty.

Bats which ſuck the blood of horſes, mules, and even men, when unſheltered from them by ſleeping under cover, are a torment common to moſt of the hot countries of America; ſome of them are of monſtrous ſize; at Borja, and in various other parts they have entirely deſtroyed the cattle introduced by the miſſionaries, and which had previouſly begun to multiply.

The variety of birds of different ſpecies in the foreſts of the Marañon is ſtill greater than of quadrupeds, but it is generally remarked, that ſcarcely any have a pleaſing ſong, their chief recommendation being their ſplendid plumage, and the diverſity of colours with which they enchant the eye. Among theſe beautiful works of nature, none exceed the Colibri mentioned by numerous authors, and which is common in America throughout the torrid zone. Of this magnificent bird I ſhall only remark, that though it is generally underſtood to belong to hot climates alone, I have no where ſeen it in ſuch numbers as in the gardens of Quito, the temperate climate of which is rather cool than otherwiſe. The Toucan, the red and yellow beak of which is ſo large and diſproportionate to its body; and to whoſe tongue, which reſembles a long and narrow quill, great virtues are aſcribed; is another bird not peculiar to this country alone.

Of parrots and water-fowl, the varieties, differing in ſize, colour and form, are numberleſs; the moſt rare among the parrots are thoſe entirely yellow, except a ſmall tinge of green at the extremity of the wings. Of this ſpecies I ſaw but two at Para, where the grey with the tip of the wings of a flame colour, ſo common in Guenca, is unknown.

The Maynas, Omaguas, and various other nations form fancy-works in feathers, but with much inferior ingenuity, and far leſs neatneſs, than is obſerved among the Mexicans.

The inhabitants on the Qyapoc have the ſkill of cauſing parrots to aſſume colours different to thoſe they originally diſplayed, by plucking their feathers and rubbing the wounds with the blood of certain frogs; this operation is what in Cayenne is termed Tapirer un Parroquet: poſſibly the ſecret conſiſts in nothing beyond bathing the ſpot from whence the feathers were plucked with ſome acid, indeed the application may be altogether uſeleſs, for it is no more wonderful that red or yellow feathers ſhould ſpring up in lieu of the green that were plucked, than to ſee grey hairs grow from a wounded part on a horſe where black had been before.

Among the ſingular birds I ſaw at Para was one the ſize of a gooſe, the plumage of which poſſeſſes nothing extraordinary, but of which the extremity of the wings is armed by a ſharp horny ſubſtance, ſimilar to a large thorn, half an inch in length. It has moreover, above its beak, another very ſlender and flexible horn, the length of the finger: it is called by the Brazilians, from the cry it makes of ſimilar ſound, Cahuitahu.

The bird called Trompetero by the Spaniards of the province of Maynas, is the ſame with the Agami of Para and Cayenne. It is very familiar and poſſeſſes nothing extraordinary if the noiſe it occaſionally makes be excepted, which has earned it the title of trumpeter. Thoſe who have conceived the noiſe made by this bird to be a note or ſong, are much in error; it proceeds not from the throat, but an organ diametrically oppoſite.

The celebrated Contur, by corruption called Condor, of Peru, which I ſaw in many parts of the mountains of the province of Quito, is likewiſe found, if reliance is to be placed in my informants, on the banks of the Marañon, nay, I have myſelf ſeen theſe birds ſcudding over a flock which probably the preſence of the ſhepherd reſtrained them from pouncing upon. It is a generally received opinion that the Contur can carry off a kid, and ſometimes flies away with a child. It is ſaid the Americans, as a lure, expoſe the image of a child, formed of a ſpecies of clay of very viſcous and adherent nature, from which this bird, ſtriking on it as it pitches, with violence, is afterwards unable to diſengage itſelf.

On the 19th of September, nearly four months from my leaving Cuenca, I arrived within ſight of Para, called by the Portugueſe the Great Para (Para in the Brazilian tongue ſignifying a river), and landed at a dependency of the college of Jeſuits. The provincial of the convent gave us welcome, and the rector detained us a week, procuring us every diverſion the country could afford, while apartments in the city were preparing for our reception. On reaching Para on the 27th, we found in readineſs for us, a very commodious and richly furniſhed houſe, with a garden commanding the ſea, and preciſely ſituate as I wiſhed, for the obſervations I had to make. The governor and captain-general of the province received us in that handſome manner we were led to expect, from the orders he had tranſmitted for our treatment on the way, to the different commandants of the forts, and from the ſtrong recommendations in our favour, tranſmitted by him to the various miſſionaries we had met with.

On

On reaching Para and bidding adieu to the woods of the Amazons, we fancied ourſelves at once tranſported to Europe. We found here a large city, rectilinear ſtreets, pleaſant houſes, moſt of them rebuilt of ſtone and brick within the laſt thirty years, and churches of magnificent appearance.

The commerce of Para direct with Liſbon, whence a fleet of merchant ſhips arrives every year, enable thoſe of the place whoſe circumſtances are eaſy, to provide themſelves with all the comforts of life. They receive European commodities in exchange for the produce of the country; ſome little gold-duſt brought from the interior of the Brazils, and all the various uſeful articles as well from the rivers which fall into the Amazons, as from that river itſelf, ſuch as clove-wood and the black nutmeg, ſalſaparilla, vanilla, ſugar, coffee, and in abundance cocoa, which is the currency of the country, and at the ſame time its ſtaple.

Probably the latitude of Para had never before been obſerved on ſhore, for when I arrived there I was confidently told I was under the line. Fritz's map places this city in lat. 1° 0′ S. By repeated obſervations, all of them agreeing, I found it to be 1° 28′ S. which latitude differs immaterially from that laid down in the Map of Laet, one, not to my knowledge followed by any after-geographers. In the New Portugueſe Traveller it is laid down in lat. 1° 40′ S. As to the longitude I am enabled to fix it with nicety by the eclipſe of the moon, which I obſerved on 1ſt Nov. 1743, and by two immerſions of the firſt ſatellite of Jupiter, on the 6th and 29th December, in the ſame year. In the interval of my procuring correſponding obſervations in ſome ſpot the longitude of which is authenticated, as there were none effected at Paris, I calculated the difference of the two meridians of Para and Paris to be three hours, twenty-four minutes. I omit the obſervations I made on the variation and dipping of the needle, and on the tides, which are rather irregular at Para.

A more important obſervation, and which immediately relates to the figure of the earth, the chief object of our voyage, was undertaken by me; I mean the aſcertainment of the length of the pendulum to give mean time, or rather the difference of the length of ſuch pendulum at Quito and at Para, one of theſe cities being on a level with the ſea, the other from fourteen to fifteen hundred toiſes above its level, and both under the equinoctial line; for a degree and a half here is of no conſequence. In this experiment I employed a pendulum twenty-eight inches long, more minutely deſcribed elſewhere, which continued its oſcillations viſibly for more than twenty-four hours and with which I had made a great number of experiments at Quito, and on Mount Pichinchi ſeven hundred and fifty toiſes above the level of Quito. The reſult of nine experiments made at Para, the two moſt diſtant of which varied but three oſcillations in 98,740, I found that my pendulum vibrated from thirty-one to thirty-two times oftener than at Quito, and from fifty to fifty-one oftener than on Pichinchi. From theſe experiments I concluded that under the equator, two bodies, one of which ſhould weigh one thouſand ſix hundred and the other one thouſand pounds, at the ſurface of the ſea, being tranſported, the one to the height of one thouſand four hundred and fifty, the other to a height of two thouſand two hundred toiſes, would each of them loſe a pound of their weight, as, or nearly, would be the caſe if the ſame experiments were made under the parallels of 22° and 28° according to the tables of Sir Iſaac Newton, or, judging from the actual experiments made under the equator, and in various parts of Europe, under the parallels of 20° and 25°. The numbers I have cited are merely approximate, and I claim the privilege of making what ſlight alteration may be neceſſary, after applying the ſuitable equations, when I publiſh the detail of my experiments on the pendulum.

During my ſojourn at Para I made ſeveral ſhort excurſions in a canoe, and availed myſelf on theſe occaſions to improve my chart. I was however unable to complete it without ſeeing the true mouth of the Amazons, and tracing its northen bank to Cape North, where it terminates in the ſea. This, and other reaſons, made me reſolve on proceeding from Para to Cayenne, whence I might ſail direct to France, on board a King's ſhip which was there to await me, rather than, as did Mr. Maldinado, profit of the opportunity afforded by the ſailing of the Portugueſe fleet, which took its departure for Liſbon on the 3d of December 1743. I was in conſequence detained at Para till the cloſe of the month, leſs owing to the repreſentations made to me of the contrary winds prevalent at this ſeaſon, than to the difficulty I experienced of procuring a complement of rowers; the ſmall pox, which at this time made great ravage here, having cauſed the country people to abandon the adjacent villages.

It is noticed at Para that this malady is more fatal to the American inhabitants of the miſſions, newly brought from the woods, and who go naked, than to ſuch of their fraternity as are clothed, and who received life, or have long dwelt with the Portugueſe. The former, a ſort of amphibious animal, as often in the water as on land, and enured from infancy to the inclemency of the weather, have poſſibly in conſequence a leſs porous ſkin than the reſt of mankind, one conſequently which will oppoſe more difficulty to the eruptions. The cuſtom, moreover, of theſe people, of rubbing their ſkins over with anatto, genipa, and various thick and greaſy oils, which in proceſs of time muſt obſtruct the pores, may likewiſe tend to increaſe this difficulty; and this conjecture is ſupported by an additional obſervation; the negro ſlaves from Africa, who follow no ſuch practice, are leſs affected by this malady than the natives. However this may be, the ſavage newly from the woods who chances to be attacked by this complaint, may in common be regarded as a dead man; but again, how comes that this is not the caſe where inoculation is reſorted to? About fifteen years ago a Carmelite miſſionary, perceiving all his flock dying about him in ſucceſſion, and having information from a news-paper of the efficacy of inoculation, which at that time made great noiſe in Europe, judging wiſely, that by reſorting to this remedy he might at leaſt render doubtful that death, which without the application was certain; he conſequently, after half his catechumens had periſhed, boldly inoculated the whole of the remainder who had not hitherto been attacked, and not one of the number died. He was followed in the example he ſet by another miſſionary on the Black River, and with equal ſucceſs. The ſenſible Carmelite reaſoned but as others might have done, who, like him, ſeeing the ravage this diſorder occaſioned, had heard of the ſucceſs of the new diſcovery; yet to him is the honour of its firſt introduction into this part of America.

After theſe experiments, ſo well authenticated, it will be reaſonably concluded, that, during the contagion of 1743 which occaſioned my detention at Para, all thoſe who had American ſlaves would reſort to a remedy ſo ſalutary. I ſhould myſelf have thought ſo, had I not been witneſs to the contrary; at leaſt as long as I ſtayed at Para it was not yet thought of. It is indeed true, that hitherto the proprietors had not loſt half their ſlaves.

On the 29th December I embarked for Cayenne, in a canoe belonging to the captain-general, with twenty-two oars, ſtored with every neceſſary to render the voyage comfortable, and furniſhed with recommendations for the Franciſcan Fathers of Reform, who have their miſſion on the iſland Marajo or Joannes, and who on my reaching their abode were inſtructed to ſupply me with a recruit of rowers; but the want of communication between Para and Cayenne, and other accidents, prevented my finding a ſingle good practical pilot in four villages, at which I landed in the early part of

January 1744. Deſtitute therefore of this eſſential, and committed to the little experience and timidity of my American rowers, and the perſon aſſigned me to command them (a Portugueſe Meſtee who ſpoke their language and who even conſidered me myſelf as ſubject to his orders), I was two months on a voyage which might have been effected in a fortnight, a delay which hindered my being able to obſerve the comet on ſhore which at this time made its appearance, and which was loſt in the ſun's rays before I reached Cayenne.

Some leagues below Para, I croſſed the eaſtern mouth of the Amazons, or the Para branch, ſeparated from the real or weſtern mouth by the large iſland called by the Portugueſe Joannes, but more commonly at Para Marajo, and by the Americans there Marago. This ſingle iſland occupies almoſt the whole intervening ſpace between the two mouths of the river. It is of an irregular form, and more than one hundred and fifty leagues in circumference. Inſtead of this ſingle iſland, in almoſt all maps is ſubſtituted a multitude of ſmall iſlands, which might be conceived to have been laid down at hazard were they not copied into the Flambeau de la Mer, accompanied by details as falſe as circumſtantial. The Para branch where I croſſed, five to ſix leagues below that city, is upwards of three leagues broad, and thence, as it approaches the ſea, continues to increaſe. I coaſted along the iſland, running towards the north for thirty leagues, as far as its laſt head-land called Maguari, beyond which I turned weſtward, keeping in with the coaſt of the iſland; which in this direction ſpreads forty leagues, diverging ſcarcely at all from the equatorial line. I paſſed within ſight of two great iſlands which I left on the north, the one called Machiana, the other Caviana, now deſerts, but once inhabited by the Arouas, who, though diſperſed, have preſerved their peculiar tongue. Theſe iſlands, like the major part of the iſland of Marajo, are nearly level with the water, ſwampy, and almoſt uninhabitable. I left the coaſt of Marajo where the iſland bends towards the ſouth, and once again enterd into the real bed, or principal channel of the Amazons, oppoſite the new fort of Macapa, on the weſtern bank of the river, tranſported by the Portugueſe two leagues to the northward of the antient ſcite. It would be impoſſible on this part to croſs the river in common boats, were not the channel narrowed by ſmall iſlands, under ſhelter of which, by ſelecting favourable ſeaſons, it is croſſed with ſafety. From the laſt iſland, however, to Macapa, there is ſtill a diſtance of two leagues. In this laſt trip I at length repaſſed, for the laſt time, the equinoctial line, towards which I had inſenſibly progreſſed from the point of embarkation. At Fort Macapa, or, more properly ſpeaking, on the ſpot deſtined for the new fort, on the 18th and 19th January, I obſerved the latitude to be 0° 3′ N.

The baſement on which the fort is to be raiſed is two or three toiſes above high-water-mark. It is only the margin of the river in this part which is covered with trees, the land in the interior is open, the firſt unwooded country which I had noticed ſince I had left the Cordillera of Quito. The natives aſſured me it continues thus towards the north, and that one might travel hence on horſe-back to the ſources of the Oyapoc, over large open ſavannahs, on which but a few thinly growing ſmall woods are ſeen at intervals. From the vicinage of the ſources of the Oyapoc, are diſtinguiſhed, towards the north, the Aprouaga mountains, which alſo are diſtinctly perceptible at ſea, many leagues from the coaſt. Taking thus much for granted, it is evident that, departing from Cayenne in lat. 5° 0′ N. and proceeding ſouthward, two, three, nay perhaps four degrees of the meridian might have been meaſured without quitting the French territory: in ſhort, if choſen, one might, with permiſſion from Portugal, have extended the line to the parallel of Macapa, that is to ſay to the equator. This plan would undoubtedly

undoubtedly have been more eaſy of execution than I conceived it myſelf when I propoſed it to the Academy twelve months before the voyage to Quito was projected. Had my opinion been followed, there is every probability we ſhould have returned years earlier: but it was only by inſpection of the country could be determined that what I recommended was practicable.

Between Macapa and the North Cape, at that part where the main channel is moſt confined by the iſlands, and eſpecially oppoſite the wide mouth of the Arauary, which falls into the Amazons from the north, a ſingular phenomenon is obſervable in the flow of the tides. For the three days next to a new and full moon, the periods of the higheſt tides, inſtead of taking near ſix hours in running up, the flood ruſhes to its height in a couple of minutes, not, as may be conceived, in the moſt tranquil manner. At the diſtance of a league or two a frightful noiſe is diſtinguiſhed, the herald of the Pororoca, which is the name given by the Americans of the diſtrict to this tremendous *bore*. In proportion as it advances, the noiſe increaſes, and ſhortly a promontory of water is ſeen, from twelve to fifteen feet high, which is ſucceeded by a ſecond, afterwards another, and ſometimes again a fourth, rapidly impelled one after the other, and filling the whole breadth of the channel: this bore advances with prodigious rapidity, and carries away before it whatever oppoſes reſiſtance. In ſome places I ſaw large tracts of land torn from the main, immenſe trees rooted up, and, in ſhort, devaſtations of every kind, the effects of its violence. Wherever it paſſes, the ſhore is as clean as if it were ſwept with a broom. Canoes, pirogues, and even larger veſſels, have no other means of ſecurity from the fury of the bore than by anchoring in great depth of water. I ſhall not in this place expatiate further on the fact, or its cauſe, than to indicate the latter by obſerving that, after attentively remarking the occurrence of this bore in ſeveral places, I found it no where happen, ſave where the tide, running in by a narrow channel, encounters in its way a ſand-bank, or ſhallow, which obſtructs the progreſs of the volume of water it brings; in ſuch ſpots this impetuous and irregular ruſh of the waves commences, ceaſing at a ſhort diſtance beyond where the channel begins to have greater depth or extenſion. Something ſimilar is ſaid to happen at the Orcades, north of Scotland, frequently in the Briſtol Channel, and occaſionally in the mouth of the Garonne, near Bourdeaux, where a bore is called Le Maſcaret.

The dread experienced by the chief of my Americans, of not being able, in the ſpace of the five days wanting of the high tides of the full moon, to reach the North Cape, from which, however, we were but fifteen leagues diſtant, and beyond which we ſhould find ſhelter, occaſioned his determining, notwithſtanding my entreaties to the contrary, to wait nine whole days on a deſert iſland, until the moon ſhould have ſome time paſſed the full. Thence we reached Cape North in leſs than two days; the day after that of the moon entering its laſt quarter, when the neap tides occur, we grounded on a mud bank, and, at ebb, the ſea retiredfar from us. The following day, the flood-tide failed of coming up to us; in fine, I remained in the mud bank a whole week, during which my rowers, now without employ, had ample leiſure to wander in ſearch of brackiſh water, wading for the purpoſe through mud up to the waiſt. For my part, I amuſed myſelf as well as I could in this irkſome poſition, by repeating my obſervations within ſight of Cape North, but, as may be gueſſed, heartily wearied with remaining ſo long in latitude 1° 51′ N. My canoe, ſtationary on mud hardened by the ſun, became a fixed obſervatory. I found the variation of the compaſs 4° E.; two and a half degrees leſs E. than at Pauxis, and remarked, that on every ſide I caſt my eyes, nothing was to be ſeen but Mangle-trees, in lieu of thoſe lofty mountains whoſe points are ſo circumſtantially detailed in the deſcription of the coaſt which accompanies the charts given in the *Flambeau*

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de la Mer, a book tranſlated from all languages, and which, in this part, ſeems rather calculated to miſlead than afford any light to navigators. At length, at the approach of the full moon, the commencement of the ſame bore ſo much dreaded ſet us afloat, but not without much danger, as it drove the canoe before it, and cauſed it to pitch and labour more in the mud, and with even greater velocity, than I experienced while in the currents of the Pongo in the upper part of the river I had lately navigated, of which, at length, I ſaw the mouth. Here my chart of the Amazons river finiſhed; I continued, however, to take a plan of the coaſt, and to make my obſervations of the latitudes, as far as Cayenne.

At a diſtance of ſome leagues weſt of the bank and under the ſame parallel, I found a ſecond mouth of the Arauari, now barred by the ſands. This mouth, and the deep and broad channel leading to it from the north, with the iſlands in advance of the cape northward, are the river and bay of Vincent Pinçon. The Portugueſe have their reaſons for confounding it with the river Oyapoc, the mouth of which, by Cape D'Orange, lies in latitude 4° 15′ N.; yet, notwithſtanding the article of the treaty of Utrecht confounds the Oyapoc with the river of Pinçon, regarding them as one, they are nevertheleſs ſundered by a ſpace of more than fifty leagues. This is a fact that will not be diſputed by any who have conſulted the old charts of this country, and have read the original authors who wrote on America before the eſtabliſhment of the Portugueſe in Brazil. I found, by obſervations made on the 23d and 24th of February, that the French fort of Oyapoc ſtands in latitude 3° 55′ N.: its ſite is on the north bank of the river, ſix leagues up from its mouth.

At length, after a voyage of two months by land, I may ſay, as well as by ſea, (for the coaſt is ſo flat between Cape North and the iſland of Cayenne, that the rudder conſtantly grounded, or rather, never ceaſed furrowing the mud, as half a league from ſhore there was at times no more than a foot of water,) I arrived at Cayenne on the 26th February 1744.

It is well known, that it was in this iſland M. Richer of this academy, in 1672, made diſcovery of the inequality of weights under different parallels, and that his experiments were the baſe of the theories of Mr. Huygens and Sir Iſaac Newton reſpecting the figure of the earth; now, one of the motives which induced me to go to Cayenne, was a proſpect of the utility that would reſult from a repetition of his experiments, as we are in the preſent day greatly accuſtomed to them, and enabled to exerciſe far more preciſion than formerly. I bring with me a ſteel rule, which, according to my obſervations, is preciſely of the ſame length with the ſimple pendulum at Cayenne; but I look for ſtill greater exactitude, from a compariſon of the number of the oſcillations of my fixed pendulum at Cayenne with the vibrations at Paris of the ſame pendulum in equal ſpace of time, when I ſhall be enabled to make the experiment. This compariſon will ſhew the poſitive exceſs of the number of the vibrations of the pendulum at Cayenne over thoſe of the pendulum vibrating ſeconds at Paris, the length of which is determined by M. Mairan; and as more preciſion was obſerved by him in the aſcertainment of the length of this pendulum than any by whom he had been preceded, it is fair to preſume it is correct. As an eſtabliſhed term may alſo be regarded the length of the pendulum aſcertained at Quito, in various manners, and with different inſtruments, by M. Godin, M. Bouguer, and myſelf, in which length we ſeverally agree to within leſs than the hundredth part of a line. But, from whichever point we proceed, the difference between the number of oſcillations in the ſpace of twenty-four hours of the ſame pendulum at Quito, at Para, and at Paris *, determined by a long ſeries of expe-

* It is queſtionable, whether, in lieu of "Paris," ſhould not be read "Cayenne." Tr.

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riments at each place, will give the preciſe length of a pendulum ſtriking ſeconds on the equinox at the level of the ſea, that length the moſt proper, by common conſent, to be received as a univerſal meaſure. How deſirable, indeed, were ſuch a meaſure, at leaſt for mathematicians! The diverſity of tongues, an inconvenience which yet muſt endure for many centuries, does it not preſent ſufficient obſtacles to the progreſs of the ſciences and the arts, by preſenting, in a degree, the requiſite communication between different people; but it muſt be ſtill increaſed, as one may ſay, purpoſely, by an affectation of uſing, in each country, and at each ſpot, meaſures and weights which conſtantly vary one from the other, while nature, in the pendulum ſtriking ſeconds under the equator, preſents an invariable teſt, ſo well adapted to the eſtabliſhment of a common meaſure and a common weight in every country; one, too, which calls upon every lover of learning for its adoption?

The object of my firſt ſolicitude on reaching Cayenne was, to diſtribute to various perſons ſeeds of Quinquina, or the Bark-tree, then only eight months old; by means of theſe, I truſted to repair the loſs might be experienced by the failure of the young plants of that tree, the laſt of which, preſerved by me from the heat of the climate and the caſualties incident on ſo long a voyage, had been carried away by a wave which, off Cape D'Orange, threatened our canoe with deſtruction. The ſeeds at Cayenne did not proſper; indeed, reflecting on their delicacy, and their inevitable expoſure to a high temperature, their proſperity was more than could reaſonably be expected. I have not, moreover, received any information reſpecting the reſult of thoſe I committed to the management of the Jeſuit miſſionaries on the Upper Oyapoc, the mountainous territory and more temperate climate of whoſe eſtabliſhment aſſimilated, far more than Cayenne, with that of Loxa, whence the ſeeeds were brought.

At Cayenne I obſerved the latitude to be, as determined by M. Richer, 5° 56′ N.; but was at firſt ſurpriſed to find, by four obſervations of the firſt ſatellite of Jupiter, each of them agreeing with the others, that the difference between the meridians at Paris and Cayenne is nearly one degree leſs than is ſtated in the *Connuiſſance des Temps;* but I have ſince learnt, that M. Richer made no obſervation of the ſatellites of Jupiter at Cayenne, and that the longitude of this place was deduced from other obſervations made by him, in a manner very imperfect and much ſubject to error. A more enlarged detail on this ſubject, as well as of my remarks on the tides, and the variation and dipping of the needle, made at the ſame place, will more appropriately occur at our private meetings.

Noticing that at Cayenne, the mountains of Courou, eſtimated ten leagues diſtant, were very diſtinctly viſible, I conceived, that a ſpot, whence the flaſh and report of a cannon fired at the fort of Cayenne could be perceived, would be well adapted to the menſuration of the celerity of ſound in a climate ſo different from that of Quito, where we had made a variety of experiments. M. d'Orvilliers, commandant of the fort, not only complied with my requeſt of iſſuing the requiſite orders, but gladly undertook to ſhare the toil with me on the occaſion; M. Freſneau, of the engineer corps, undertook, on his part, the hoiſting of ſignals, and aſcertaining the celerity of the wind, with ſeveral other incidental matters. From five experiments made on two different days, four of which agreed within leſs than half a ſecond in one hundred and ten, and from the diſtance, which was concluded to be twenty thouſand two hundred and thirty toiſes by trigonometrical calculations, in which a baſe twice meaſured on a level beach of one thouſand nine hundred toiſes was employed, we determined, as the mean reſult of the celerity of ſound, deducting for that of the wind, that it flew at the rate of one hundred and eighty-three and a half toiſes in a ſecond in this part, whereas its progreſs

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at Quito was only one hundred and ſeventy-five. The cannon uſed in theſe experiments was a twelve pounder.

I took advantage of the angles I had already meaſured, and the diſtances aſcertained in order to determine geometrically the poſition of thirty or forty points, as well in the iſland of Cayenne as on the continent and the coaſt, among others, of certain rocks, and eſpecially that called the Conſtable, which ſerves as a ſea-work to ſhips. I likewiſe took the angles of elevation of the moſt conſpicuous capes and mountains. Their height, well aſcertained, would furniſh pilots with a much better dependence than mere reckoning, for appreciating, on catching ſight of them, (and that without other trouble than conſulting a ſimple table,) their diſtance from the coaſt. It is but too well known how neceſſary, on approaching the land, an exact knowledge of this is to the mariners; nor is the help which geometry affords to navigation, and which has been hitherto neglected, confined to this inſtance alone.

On another excurſion out of the iſland, in company with M. d'Orvilliers, we aſcended ſeveral rivers on the main, and meaſured their courſes; I alſo frequently took the latitudes, and thus obtained materials which, with the principal points I had before determined, may ſerve to form an exact map of this colony, which is the more wanting, as there are none at preſent deſerving the name.

During my ſojourn at Cayenne, I had the curioſity to try, if the venom of the poiſoned arrows, which I had preſerved upwards of a year, ſtill retained its activity, and whether ſugar be in reality as ſecure an antidote as it is repreſented. The experiments for determining theſe points were made in preſence of the governor of the colony, of ſeveral officers of the garriſon, and of the King's phyſician. A pullet, ſlightly wounded by a ſmall arrow, which had been dipped in this poiſon thirteen months before, and which was blown through a ſarbacan, lived about half a quarter of an hour; another, pricked in the wing with one of theſe ſame arrows, newly dipped in the venom diluted with water and immediately withdrawn, ſeemed to faint a minute afterwards, was ſhortly ſeized with convulſions, and, notwithſtanding it was made to ſwallow ſugar while in this ſtate, expired. A third, pricked with the ſame arrow freſh dipped in the poiſon, having had the ſame remedy immediately adminiſtered, exhibited no ſign of the leaſt inconvenience. I repeated theſe experiments afterwards at Leyden in preſence of the celebrated profeſſors, Muſſenbrock, Van Swieten, and Albinus, belonging to the univerſity there, on the 23d January of this year. The poiſon, the force of which was neceſſarily diminiſhed by length of time, and by the cold, did not produce its effects in leſs than five or ſix minutes; but ſugar was given to no purpoſe in another inſtance, the fowl which ſwallowed it living but a ſhort time longer than the other *. The experiment was not repeated. This poiſon is an extract made by boiling the juices of certain plants, eſpecially particular lianas. For the venom uſed by the Ticunas, which is that I tried, and which is held in higheſt eſteem of all the different ſpecies known along the river Amazons, I am aſſured that more than thirty kinds of herbs or roots enter into its compoſition. Theſe Americans conſtantly follow the ſame proceſs in preparing it, that handed down to them by their forefathers, and this with as nice exactitude as with us apothecaries in the compoſition of the *theriaca Andromachi*, omitting not

* Should this relation be perfectly correct, it would appear that, although at a high temperature of the air ſugar immediately taken on the blood becoming infected with this poiſon, may be regarded as a remedy and antidote, it loſes its efficacy when adminiſtered in a cold climate. The temperature, at the time the experiment was made at Cayenne, in July, would be about 80° Fahr., while that at Leyden, in the midſt of winter, was poſſibly below 30°. TRANS.

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the ſmalleſt ingredient, although it is highly probable the great multiplicity of components is as little requiſite in the American poiſon as in the European antidote.

It will no doubt occaſion ſurpriſe, that among a people who poſſeſs an inſtrument ſo certain and ſo quick of effect, with which to ſatiate their vengeance, their jealouſy or hate, it ſhould be fatal to monkeys or birds alone. It is the more to be admired, as a miſſionary, ever dreaded, and often held in abhorrence by theſe neophytes, towards whom his functions admit not of ſhewing that indulgence they exact, though ſurrounded by them, lives without fear or miſtruſt of harm; and what ſhould ſtill farther increaſe our admiration, theſe innoxious people are ſavages, for the major part deſtitute of the leaſt idea of religion!

Having learnt, while at Cayenne, the marvellous and even novel fact, of the multiplication of Polypi, diſcovered by M. Trembley, and ſince confirmed by the experiments of M. Reaumur, M. de Juſſieu, and a variety of other naturaliſts, I made ſome trials on ſea-polypi of large ſize, which, off this coaſt, are very common. My firſt experiments were not attended with ſucceſs, and an illneſs with which I was ſeized, prevented my repeating them as I intended.

Five months' ſtay at Cayenne, without ſeeing the King's ſhip arrive, which was expected, and without receiving any news from France, a pleaſure of which I had been deprived for five years, made more impreſſion upon me than nine years' travelling and fatigue. I was attacked with a lowneſs of ſpirits and the jaundice, from which I found greater relief than from all medicine, in the extremely polite anſwer I received from M. Mauricius, governor of the Dutch colony of Surinam, in which he invited me to his houſe at Surinam, and offered me a paſſage to Holland, engaging to furniſh me with a paſſport in caſe of rupture between France and the States General. I loſt not a moment; and, after a ſtay of ſix months at Cayenne, I left it in a convaleſcent ſtate on the 22d Auguſt 1744, in a King's barge, furniſhed me by M. Orvilliers, with a ſerjeant belonging to the garriſon, who had command only over the rowers. In conſequence, this trip was much ſhorter than that from Para to Cayenne. I ſtopped on the way no longer than was neceſſary to complete my crew of Americans. The miſſionary father at Senamary procured me a ſufficient number of hands, notwithſtanding the rumour of a contagious diſtemper exiſting at Surinam, which, though falſe, had ſpread to a diſtance a general panic among the natives. Deducting ſtoppages, now voluntary, and now conſtrained, I was ſomewhat more than ſixty hours on my voyage from Cayenne to the river of Surinam, which I entered the 27th.

On the 28th, I aſcended the river the height of five leagues, which brought me to Paramaribo, the capital of the Dutch colony of Surinam, the governor of which, in his conduct, ſurpaſſed the expectations I had formed from his obliging letters. I obſerved the latitude, which I found to be 5° 49′ N.; and I likewiſe made ſeveral other obſervations during the five days I ſtopped: on the 3d September, I embarked on board a merchant ſhip bound to Amſterdam.

The 29th, we diſpenſed with ſhewing my paſſport to an Engliſh cruiſer, owing to the bad weather; this, however, would probably have met with little reſpect, as, at firſt ſight, the cruiſer ſaluted us with ſhot, to make us ſend our boat on board, notwithſtanding we were under Dutch colours.

On the 6th November, at the entrance of the channel, we were accoſted by a cruiſer from St. Maloes for a ſimilar purpoſe, but in a leſs diſcourteous manner, for, coming within hail, the captain was ſatisfied, on the aſſurance I gave him, mentioning who I was, of whence we were, that he was merely loſing time with us. On the 16th, at the entrance of the Texel, we took on board a coaſting pilot to conduct us into port;

but, forced to keep aloof from the land we ſought, we kept wandering about at random, conſtantly ſounding, and accompanied with conſtant fogs, for fifteen of the ſhorteſt days of the year, ſurrounded all the time by ſhoals and ſhallows. One night we diſtinguiſhed the Scheveling lights, ſeldom ſeen with impunity; at length we diſtinguiſhed the ſhore of Vlieland, while our pilots, by their reckoning, imagined us within ſight of the Texel. The 30th November, in the evening, I landed at Amſterdam, where, and at the Hague, I waited two months for the paſſports requiſite to croſs the Low Countries. I am indebted for thoſe from England to Mr. Trevor, the miniſter of that nation at the Hague, who, without heſitation, granted them to the entreaty of M. l'Abbé de la Ville, the French ambaſſador; for thoſe from the miniſter of the Queen of Hungary, I am obliged to Lord Bentinck. To conclude;—on the 23d February 1745, I arrived in Paris, after a lapſe of ten years from my departure thence.

LETTER *of* M. DE LA CONDAMINE, *written in* 1773, to M. ****; *giving an Account of the Fate of thoſe Aſtronomers who participated in the requiſite Operations for the Meaſurement of the Earth, begun in* 1735.

YOU feel intereſted, Sir, in the labours of the Academy of Sciences undertaken for the meaſurement of the earth, and are anxious to learn the fate of all who were employed on this great work abroad ſince the year 1735; well might I anſwer you in the words of Virgil,—

Apparent rari nantes in gurgite vaſto.

But few remain buoyed on the extenſive waſte.

We ſailed from Rochelle in the month of May 1735, provided with paſſports from His Catholic Majeſty Philip V., for the purpoſe of meaſuring the degrees next the equator in his South American dominions. Our party conſiſted of three members of the Academy, M. Godin, M. Bouguer, and myſelf; of M. Joſeph de Juſſieu, M. D. regent of the Faculty at Paris, and brother of the two other academicians, admitted likewiſe, during his abſence, a member of the academy; M. Seniergues, a ſurgeon; M. Verguin, engineer in the navy; M. de Morainville, draughtſman for the department of Natural Hiſtory; M. Couplet, a nephew of the academician of that name; M. Godin des Odonais, who will form the chief ſubject of this letter; and M. Hugo, a watch and mathematical inſtrument-maker: at Carthagena, in America, we were, moreover, joined by two lieutenants of Spaniſh ſhips, appointed by the court of Madrid to accompany us during our obſervations.

The following year M. de Maupertuis, nominated for the meaſurement of the degrees of the meridian under the Arctic Circle, embarked at Rouen, accompanied by Meſſrs. Clairaut, Camus, and Monnier the younger, academicians, M. l'Abbé Outhier, M. Celſius, a Swediſh aſtronomer, and others.

In 1751, M. l'Abbé de la Caille, an academician, ſet ſail for the Cape of Good Hope, on which expedition the meaſurement of two degrees of the meridian was one of his lighteſt labours.

Of the five travellers to the Arctic Circle, only M. Monnier at preſent ſurvives. The Abbé de la Caille, who undertook alone the voyage to the Cape, and whoſe health appeared proof againſt every attack, on his return to Paris died, a martyr to his aſtronomical

nomical zeal, in 1762; and M. l'Abbé Chappe d'Auteroche, an academician, the junior of the laſt mentioned, whom he took for his model, experienced in California, in 1769, a ſimilar deſtiny.

Of my companions on the voyage to the equator, M. Couplet, the moſt robuſt and one of the youngeſt, was carried off, three days after his arrival at Quito, by a putrid fever. M. Seniergues, our ſurgeon, was killed in a popular commotion at Cuenca. M. Bouguer in 1758 died of an abſceſs of the liver. M. Godin, after entering the Spaniſh ſervice, in which he was appointed to the direction of the Academy of Naval Guards at Cadiz, younger than M. Bouguer, ſurvived the latter but two years. M. de Morainville, who remained in the province of Quito, met with death by falling from the ſcantling of a church, of which he was the architect, at Cicalpa, in the vicinage of Riobomba. Of M. Hugo, who married at Quito, I have received no intelligence theſe fifteen years back. I do not enumerate how many of our ſervants, white as well as of colour, who died in the courſe of our travels; two of them of a violent death.

Commander Don Jorge Juan, the ſuperior of the two Spaniſh officers attached to our party, made a poſt-captain on his return to Spain, and afterwards commandant of the Naval Guards, commodore, and ambaſſador to Morocco, though younger than moſt of us, died lately of apoplexy at Madrid. Dr. Joſeph de Juſſieu, long detained by the Audencia Real of Quito for the benefit of his profeſſional aſſiſtance, and afterwards by the Viceroy of Lima, returned to Paris two years back: as formerly the famous M. Mabillon, he has loſt his memory, but, not ſo fortunate as he, to M. de Juſſieu it has never returned; for this laſt gentleman and myſelf I know not whether in juſtice we can both together be reckoned equivalent to one living being. A deafneſs, which I began to experience in America, is become exceſſive; and for theſe laſt five years I have been deprived of all external feeling in my lower members, the vitality of which I am rendered ſenſible of only by the pains I experience in them on change of weather. Thus, of eleven travellers in the Torrid Zone, excluſive of ſervants, the only ones deſerving to be reckoned alive, are M. Verguin, naval engineer at Toulon; Don Antonio de Ulloa, commodore in the Spaniſh navy, and late governor of Louiſiana (nor indeed are either of theſe exempt from infirmities); and M. Godin des Odonais, who, after thirty-eight years' abſence, has lately reached Paris, and who has furniſhed me with matter calculated to afford you entertainment. I received from him, in the month of Auguſt laſt, in conſequence of entreaty that he would favour me with a narrative of the travels of his wife, a lady known to me from her infancy, and of whoſe adventures I had heard but a confuſed account, the letter of which I incloſe you a tranſcript: by it you will ſee what miracles may be effected by reſolution and perſeverance. Callous indeed muſt be that heart which can remain unmoved at the recital of the ſhocking misfortunes of an amiable woman brought up with tenderneſs, who, by a ſeries of events not to be avoided by human foreſight, found herſelf in the depth of impervious foreſts, the haunts of ferocious beaſts and dangerous reptiles, and there expoſed to all the horrors incident on thirſt, on hunger, and fatigue; and who, after beholding ſeven perſons who accompanied her ſink under the weight of ſuch diſtreſs, and expire by her ſide, wandered, an inſulate being, the only one ſurviving for ſeveral days through this deſert; finally, who, by providence, bordering on a miracle, eſcaped all the perils of her critical ſituation. You will at the ſame time notice the munificence of His Portugueſe Majeſty towards M. Godin, and the liberal demeanor of the officers charged with the execution of his orders.

Upon repreſentation made to him by M. Godin, the beneficent miniſter (M. le Duc de Vrilliere), whoſe department embraces the Academies, has recently obtained for

him from His Majeſty a penſion, well earned by his zeal and toil during our operations, and by the long exile he endured from a country to which he was ſo anxious to return.

LETTER *to* M. DE LA CONDAMINE *from* M. GODIN DES ODONAIS.

Sir, St. Amand, Berry, 28th July 1773.

YOU require of me a narrative of the travels of my ſpouſe along the Amazons river, the ſame route I followed after you. The rumours which have reached your ears of the dangers to which ſhe was expoſed, and which ſhe alone of eight perſons ſurmounted, augment your curioſity. I had reſolved never to ſpeak of them again, ſo painful to me was the recollection of them; but, as an old companion in your travels, a diſtinction which I prize, I cannot refuſe in turn for the intereſt you take in our welfare, and the marks of friendſhip you have ſhewn me, to give you the ſatisfaction you require.

We landed at Rochelle on the 26th of June laſt, after a paſſage from Cayenne, effected in ſixty-five days, having left this laſt place on the 21ſt of April. On our arrival, I made enquiries after you, and learnt with much grief that four or five months had elapſed ſince you were no more. While yet in tears, my wife and myſelf were delighted on wiping them away, to find that at Rochelle the literary journals, and what regards the Academy, are far leſs read than the news which relates to commerce. Accept, Sir, for yourſelf and Mad. de la Condamine our heartieſt congratulations.

You will recollect that the laſt time I had the honour of ſeeing you in 1742, previous to your leaving Quito, I told you that I reckoned on taking the ſame road that you were about to do, along the river of Amazons, as much owing to the wiſh I had of knowing this way, as to inſure for my wife the moſt commodious mode of travelling, by ſaving her a long journey over-land, through a mountainous country, in which the only conveyance is on mules. You took the pains in the courſe of your voyage to give information at the Spaniſh and Portugueze miſſions eſtabliſhed on its banks, that one of your companions would follow you; and, though ſeveral years elapſed from the period of your leaving them, this had not been forgotten. My wife was exceedingly ſolicitous of ſeeing France, but her repeated pregnancies, for ſeveral years after your departure, prevented my conſent to her being expoſed to the fatigues incident on ſo long a voyage. Towards the cloſe of 1748 I received intelligence of the death of my father; and my preſence thence becoming indiſpenſable for the arrangement of my family affairs, I reſolved on repairing to Cayenne by myſelf down the river; and planning every thing on the way to enable my wife to follow the ſame road with comfort, I departed in March 1749 from the Quito, leaving Mad. Godin at that time pregnant. I arrived at Cayenne in April following, and immediately wrote to M. Rouillé, then miniſter of the navy, intreating him to procure me paſſports and recommendations to the court of Portugal, to enable me to aſcend the Amazons, for the purpoſe of proceeding to my family, and bringing it back with me by the ſame channel. Any one but you, Sir, might be ſurpriſed at my undertaking thus lightly a voyage of fifteen hundred leagues, for the mere purpoſe of preparing accommodations for a ſecond: but you will know that travels in that part of the world are undertaken with much leſs concern than in Europe; and by thoſe I had made during twelve years for reconnoitring the ground for the meridian of Quito, for fixing ſignals on the loftieſt mountains, in going to and returning from Carthagena, had made me perfectly a veteran. I availed myſelf of the opportunity afforded by the conveyance which took my letters to forward ſeveral objects pertaining to natural hiſtory for the King's garden; among others, ſeed of the ſarſaparilla, and of the

five ſpecies of the Butua; with theſe alſo a grammar, printed at Lima, of the language of the Incas, which I deſigned as a preſent for M. de Buffon, from whom I received no anſwer. By that with which I was honoured from M. Rouillé, I learnt that His Majeſty had been pleaſed to direct that the governor and intendant of Cayenne ſhould both furniſh me with recommendations to the government of Para. Upon this, I wrote to you, Sir, and you were ſo obliging as to ſolicit paſſports for me. You moreover favoured me with a letter of recommendation from Commander La Cerda, miniſter of Portugal to France, addreſſed to the governor of Para, with a letter from M. l'Abbé de la Ville, which informed you that my paſſports had been expedited, and forwarded to Para. I enquired reſpecting them of the governor of that place, who expreſſed his entire ignorance of the fact. I repeated my letters to M. Rouillé, who then was no longer in the miniſtry. Since that time I renewed my letters every year, four, five, and even ſix times, for the purpoſe of obtaining my paſſports, and conſtantly without effect. Many of my letters were loſt, or intercepted, during the war, of which I the leſs doubt from your having ceaſed to receive any, notwithſtanding I regularly continued my correſpondence. At length, hearing caſually that M. le Comte d'Herouville was in the confidence of M. de Choiſeul, I ventured, in 1765, to write to the former of theſe noblemen, although I had not the honour of being known to him, explaining in a few words who I was, and entreating him to intercede with the Duc de Choiſeul for the tranſmiſſion of my paſſports. To the kindneſs of this nobleman alone can I attribute the ſucceſs that followed this ſtep; for, the tenth month from the date of my letter to M. le Comte de Herouville, I ſaw a decked galliot arrive at Cayenne, equipped at Para by order of the King of Portugal, manned with thirty oars, and commanded by a captain of the garriſon of Para, inſtructed to bring me to Para, thence tranſport me up the river as high as the firſt Spaniſh ſettlement, to wait there till I returned with my family, and ultimately re-conduct me to Cayenne, all at the ſpecial charge of His Moſt Faithful Majeſty; a liberality truly loyal, and ſuch as is little common among ſovereigns. We left Cayenne at the cloſe of November 1765, in order to take in property belonging to me at the fort of Oyapoc, where I reſided. Here I fell ſick, and even dangerouſly ſo. M. de Rebello, the captain, a knight of the order of Chriſt, was ſo complaiſant as to wait for me ſix weeks; finding at length that I ſtill continued too ill to venture on the voyage, and, fearful of abuſing the patience of this officer, I beſought him to continue his route, and that he would permit me to put ſome one on board, to whom I might entruſt my letters, and who might fill my place in taking care of my family on its return. I caſt my eyes on Triſtan D'Oreaſaval, a perſon whom I had long known, and in whom I had confidence. The packet I entruſted to him contained the orders of the Father-general of the Jeſuits to the Provincial of Quito, and the Superior of the miſſions of Maynas, for furniſhing the canoes and equipage neceſſary for the voyage of my ſpouſe. The inſtructions I gave to Triſtan were ſimply to deliver thoſe letters to the Superior, reſident at La Laguna, the capital of the Spaniſh miſſions of Maynas, whom I entreated to forward my letters to Riobamba, in order that my wife might receive information of the veſſel diſpatched by His Majeſty of Portugal, at the recommendation of the King of France, to bring her to Cayenne. Triſtan was further directed to wait an anſwer from Riobamba at Laguna. He ſailed from Oyapoc on the 24th January 1766, and arrived at Loreto, the firſt eſtabliſhment belonging to Spain on aſcending the river, in the month of July or Auguſt of the ſame year. Loreto is a miſſion eſtabliſhed below that of Pevas ſince the period of your coming down the river in 1743; nay, both this and the Portugueze miſſion of Savatinga, above that of St. Pablo, which was before their laſt ſettlement up the river, have been founded ſince my paſſage deſcending in 1749. The better to comprehend

what I now deſcribe, it may be well you ſhould caſt your eyes over the chart made by you of the courſe of the Amazons, or that of the province of Quito, inſerted in your Hiſtorical Journal of the Voyage to the Equator. The Portugueze officer, M. de Rebello, after landing Triſtan at Loreto, returned to Savatinga, in conformity to the orders he had received of waiting there until Madame Godin ſhould arrive; and Triſtan, in lieu of repairing to Laguna, the capital of the Spaniſh miſſions, and there delivering his letters to the Superior, meeting with a miſſionary Jeſuit, called Father Yeſquen, who was on his return to Quito, by an unpardonable overſight, which had every appearance of a bad intent, delivered to his care the packet of letters. This was addreſſed to Laguna, ſome days' journey from the ſpot where Triſtan was: but in lieu of attending to this circumſtance, he ſent it five hundred leagues beyond, to the other ſide of the Cordilleras, and himſelf remained in the Portugueſe miſſions, carrying on trade.

You will pleaſe to notice that, beſides different articles which I had entruſted him to diſpoſe of for me, I had furniſhed him in addition with more than ſufficient to defray all expence in travelling through the Spaniſh miſſions.

Spite, however, of his bad conduct, a vague rumour obtained circulation through the province of Quito, and reached the ears of Madame Godin, not only of letters addreſſed to her being on their way in the cuſtody of a Jeſuit, but alſo, that in the uppermoſt miſſions of Portugal a veſſel equipped by His Moſt Faithful Majeſty had arrived to tranſport her to Cayenne. Her brother, a monk of the order of Auguſtins, in conjunction with Father Terol, a provincial Dominican, exerted themſelves much to induce the Provincial of the Jeſuits to obtain theſe letters. The Jeſuit who received them at length made his appearance, and ſtated he had delivered them to another; this other, being interrogated, replied, he had committed them to a third: but, notwithſtanding the moſt diligent perquiſition, the letters never were found. With reſpect to the arrival of the veſſel, opinions differed, ſome giving credit to, while others diſputed the fact. To venture on a voyage of ſuch length without any certainty, and preparatory thereto to arrange all family affairs, and part with her furniture, was what Madame Godin could not, without much riſk and imprudence, reſolve upon: ſhe determined on the commendable medium of diſpatching a faithful negro, who departed with ſome Americans, but who, in conſequence of obſtacles, was obliged to return. His miſtreſs ſent him forward a ſecond time with new inſtructions, and means of ſurmounting the difficulties which had prevented his progreſs before. More fortunate on this ſecond trip, the negro reached Loreto, ſaw and communicated with Triſtan, and, returning, acquainted Madame Godin of the reality of the report, and that Triſtan was at Loreto. Upon this ſhe determined on her journey, ſold part of her furniture, but left the reſt, as well as her houſe at Riobamba, a garden and eſtate at Guaſlen, and another property of ours between Galté and Maguazo, to her brother-in-law. Some idea of the length of time which elapſed ſince the month of September 1766, at which epoch the letters were delivered to the Jeſuit, may be formed by computing how long the journey of the reverend father to Quito will have occupied, how much time would be loſt in ſeeking the letters, in enquiry into the fact of the rumour, in heſitating about what was beſt to do, and by the two journeys of the negro to Loreto and back to Riobamba, by the ſale alſo of our effects, and the requiſite preparations for a voyage of ſuch length; in fact, theſe prevented her ſetting out from Riobamba, forty leagues ſouth of Quito, before the 1ſt of October 1769.

The arrival of the Portugueſe veſſel was rumoured at Guayaquil, and even as far as the ſhore of the South Sea; for M. R., who reported himſelf to be a French phyſician, coming from Upper Peru, and on his way to Panama and Porto Bello, in view of paſſing thence

thence to Santo Domingo, Martinico, or, at any rate, to the Havannah, and from that place to Europe, touching at Point Saint Helena; learnt there that a lady of Riobamba was on the point of ſetting out for the Amazons river, and embarking thence in a veſſel equipped by the order of His Portugueze Majeſty, to take her to Cayenne. This engaged him to change his route, and aſcending the Guayaquil river, he proceeded to Riobamba to entreat Madame Godin to grant him a paſſage, undertaking in return to watch over her health, and ſhew her every attention. At firſt ſhe anſwered, that ſhe had no authority to grant his requeſt; but M. R. applying to her two brothers, they repreſented to her ſo urgently that ſhe might have need of the aſſiſtance of a phyſician on ſo long a voyage, that ſhe at length conſented to his accompanying her. Her two brothers, who likewiſe were ſetting out for Europe, heſitated not an inſtant to avail themſelves of the opportunity which now offered of haſtening their arrival, the one at Rome, whither he was called by buſineſs relative to his order, the other in Spain, where his private affairs required his preſence. The latter took with him a ſon about nine or ten years of age, whom he wiſhed to educate in France. M. de Grandmaiſon, my father-in-law, went on before to obtain every poſſible accommodation for his daughter on the road, to the point of embarkation beyond the great Cordillera. He at firſt met with obſtacles from the preſident and captain-general of the province of Quito; for you, Sir, are aware that the paſſage by the Amazons is forbidden by the Spaniſh court; but theſe difficulties were ſoon overcome. On my return from Carthagena, whither I had been diſpatched on matters relative to our company in 1740, I brought back with me a paſſport from the viceroy of Santa Fé, Don Sebaſtian de Eſlava, authoriſing our taking whatever road we pleaſed; and in conſequence of the production of this, the Spaniſh governor of the province of Maynas and Omaguas, informed of the approach of Madame Godin, politely ſent to meet her a canoe ſtored with refreſhments, ſuch as fruit, milk, &c. which reached her a little diſtance from the town of Omaguas; but to what misfortunes, what a horrible ſituation was ſhe not expoſed before that happy moment! She left her reſidence of Riobamba with her eſcort on the 1ſt of October 1769; and with theſe ſhe reached Canelos, the ſpot at which they were to embark, ſituate on the little river Bobonaſa, which empties itſelf into the Paſtaca, as that laſt does into the Amazons. M. de Grandmaiſon, who preceded them a month on the way, found the village of Canelos well inhabited, and immediately embarked, continuing his journey, to prepare every thing neceſſary for the tranſport of his daughter at each ſtage of her way. As he knew that ſhe was accompanied by her brothers, a phyſician, her negro, and three female mulattoes or Americans, he proceeded on to the Portugueſe miſſions. In the interval, however, between his journey and the arrival of my wife, the ſmall pox, an European import, more fatal to the Americans in this part than the plague, which is fortunately here unknown, is to the people of Levant, had cauſed the village of Canelos to be utterly abandoned by its population. They had ſeen thoſe firſt attacked by this diſtemper irremediably carried off, and had in conſequence diſperſed among the woods, where each had his own hut, ſerving as a country-retreat. On her departure my wife was eſcorted by thirty-one American natives to carry herſelf and baggage. You know, Sir, that this road, the ſame purſued by M. de Maldonado, is impracticable even for mules; that thoſe capable, effect the paſſage on foot, but that others are carried. The Americans who eſcorted Madame Godin, who were paid in advance according to the bad cuſtom in this country, a cuſtom founded on miſtruſt, at times but too well founded, ſcarcely reached Canelos before they retraced their ſteps, either from dread of the air being infected, or from apprehenſion

of

of being obliged to embark, a matter obnoxious in extreme to individuals who had perhaps never ſeen a canoe in their lives but at a diſtance. Nay ſuch excuſes are poſſibly ſuperfluous, for you well know how often we are abandoned by them on our mountains, on no pretence whatever. What under ſuch circumſtances was to be done? Had my wife been able to return, yet the deſire of reaching the veſſel waiting her, together with her anxiety to rejoin a huſband from whom ſhe had been parted twenty years, were incentives powerful enough to make her, in the peculiar circumſtances in which ſhe was placed, brave even greater obſtacles.

In the village only two Indians remained free from the contagion; theſe had no boat, but they engaged to conſtruct one and pilot it to the miſſion of Andoas, about twelve days' journey below, deſcending the river Bobonaza, a diſtance of from one hundred and forty to one hundred and fifty leagues; ſhe paid them beforehand; the canoe being finiſhed, they all departed from Canelos. After navigating the river two days, on the ſucceeding morning the pilots abſconded; the unfortunate party embarked without any one to ſteer the boat, and paſſed the day without accident. The next day at noon, they diſcovered a canoe in a ſmall port adjoining a leaf-built hut, in which was a native recovering from illneſs, who conſented to pilot them. On the third day of his voyage, while ſtooping over to recover the hat of Mr. K., which had fallen into the water, the poor man fell overboard, and, not having ſufficient ſtrength to reach the ſhore, was drowned. Behold the canoe, again without a ſteerſman, abandoned to individuals perfectly ignorant of managing it; in conſequence it was ſhortly overſet, which obliged the party to land, and build themſelves a hut. They were now but from five to ſix days journey from Andoas. Mr. R. propoſed to repair thither, and ſet off with another Frenchman of the party, and the faithful negro belonging to Madame Godin, taking eſpecial care to carry his effects with him. I ſince blamed my wife for not having diſpatched one of her brothers to accompany Mr. R., but found that neither of them, after the accident which had befallen the canoe, were inclined to truſt themſelves on the water again, without a proper pilot; Mr. R. moreover promiſed that within a fortnight a canoe ſhould be forwarded to them with a proper complement of natives. The fortnight expired, and even five and twenty days, when, giving over all hopes, they conſtructed a raft on which they ventured themſelves, with their proviſions and property. The raft, badly framed, ſtruck againſt the branch of a ſunken tree, and overſet, all their effects periſhing in the waves, and the whole party being plunged into the water. Thanks to the little breadth of the river at this place no one was drowned, Madame Godin being happily ſaved, after twice ſinking, by her brothers. Placed now in a ſituation ſtill more diſtreſſing than before, they collectively reſolved on tracing the courſe of the river along its banks. How difficult of effect this enterpriſe, you, Sir, are well aware, who know how thickly the banks of the rivers are beſet with trees, underwood, herbage and lianas, and that it is often neceſſary to cut one's way. They returned to their hut, took what proviſions they had left behind, and began their journey. By keeping along the river's ſide they found its ſinuoſities greatly lengthened their way, to avoid which inconvenience they penetrated the wood, and in a few days they loſt themſelves. Wearied with ſo many days' march in midſt of woods, incommodious even for thoſe accuſtomed to them, their feet torn by thorns and brambles, their proviſions exhauſted, and dying with thirſt, they were fain to ſubſiſt on a few ſeed, wild fruit, and the palm cabbage. At length, oppreſſed with hunger and thirſt, with laſſitude and loſs of ſtrength, they ſeated themſelves on the ground without the power of riſing, and, waiting thus the approach of death, in three or four days expired one after the other. Madame Godin, ſtretched on the ground by the ſide of the corpſes of

of her brothers and other companions, ſtupified, delirious, and tormented with choaking thirſt, at length aſſumed reſolution and ſtrength enough to drag herſelf along in ſearch of the ſalvation which providentially awaited her. Such was her deplorable condition ſhe was without ſhoes, and her clothes all torn to rags: ſhe cut the ſhoes off her brothers' feet, and faſtened the ſoles on her own. It was about the period between the 25th and 30th of December 1769 that this unfortunate party (at leaſt ſeven of the number of them) periſhed in this miſerable manner; the date I gather by what I learn from the only ſurvivor, who related that it was nine days after ſhe quitted the ſcene of the wretched cataſtrophe deſcribed before ſhe reached the banks of the Bobonaſa. Doubtleſs this interval muſt have appeared to her of great length, and how a female ſo delicately educated and in ſuch a ſtate of want and exhauſtion, could ſupport her diſtreſs, though but half the time, appears moſt wonderful. She aſſured me that ſhe was ten days alone in the wood, two, awaiting death by the ſide of her brothers, the other eight wandering at random. The remembrance of the ſhocking ſpectacle ſhe witneſſed, the horror incident on her ſolitude and the darkneſs of night in a deſert, the perpetual apprehenſion of death, which every inſtant ſerved but to augment, had ſuch effect on her ſpirits as to cauſe her hair to turn grey. On the ſecond day's march, the diſtance neceſſarily inconſiderable, ſhe found water, and the ſucceeding day ſome wild fruit and freſh eggs, of what bird ſhe knew not, but which, by her deſcription, I conjecture to have been a ſpecies of partridge. Theſe with the greateſt difficulty was ſhe enabled to ſwallow, the œſophagus, owing to the want of aliment, having become ſo much parched and ſtraitened; but theſe and other food ſhe accidentally met with, ſufficed to ſupport her ſkeleton frame. At length, and not before it was indiſpenſable, arrived the ſuccour deſigned for her by providence.

Were it told in a romance that a female of delicate habit, accuſtomed to all the comforts of life, had been precipitated into a river; that, after being withdrawn when on the point of drowning, this female, the eighth of a party, had penetrated into unknown and pathleſs woods, and travelled in them for weeks, not knowing whither ſhe directed her ſteps; that, enduring hunger, thirſt, and fatigue to very exhauſtion, ſhe ſhould have ſeen her two brothers, far more robuſt than her, a nephew yet a youth, three young women her ſervants, and a young man, the domeſtic left by the phyſician who had gone on before, all expire by her ſide, and ſhe yet ſurvive; that, after remaining by their corpſes two whole days and nights, in a country abounding in tigers and numbers of dangerous ſerpents, without once ſeeing any of theſe animals or reptiles, ſhe ſhould afterwards have ſtrength to riſe, and continue her way, covered but with tatters, through the ſame pathleſs wood for eight days together till ſhe reached the banks of the Bobonaſa, the author would be charged with inconſiſtency; but the hiſtorian ſhould paint facts to his reader, and this is nothing but the truth. The verity of this marvellous tale is atteſted by original letters in my hands, from many miſſionaries on the Amazons who felt an intereſt in this event, and by other proofs as will be ſeen in the ſequel of this narrative. Theſe misfortunes would have been avoided altogether but for the infidelity of Triſtan, but for his neglect, in lieu of ſtopping at Loreto, of delivering as inſtructed, in perſon, my letters to the Superior at Laguna; with this precaution on his part my wife would, as her father had done, have found the village of Canelos peopled with natives, and a canoe ready to convey her forward.

To return, it was on the eighth or ninth day, according to Madame Godin, after leaving the dreadful ſcene of the death of her companions, that ſhe found herſelf on the banks of the Bobonaſa. At day-break ſhe heard a noiſe at about two hundred paces from her. Her firſt emotions, which were thoſe of terror, occaſioned her to

ſtrike

ſtrike into the wood; but, after a moment's reflection, ſatisfied that nothing worſe could poſſibly befal her, than to continue in her preſent ſtate, and that alarm was therefore childiſh, ſhe proceeded to the bank of the river, and perceived two native Americans launching a boat into the ſtream. It is the cuſtom of theſe people, on their landing to paſs the night, to draw their canoe either wholly, or partially on ſhore, as a ſecurity againſt accidents, for ſhould it be left afloat, and the faſtening tackle break, it would be carried away by the current, and leave the ſleepers on ſhore in a truly helpleſs ſtate. The natives, perceiving Madame Godin, advanced towards her, on which ſhe conjured them to tranſport her to Andoas: they had been driven by the contagion prevalent at Canelos to withdraw with their wives to a hut they had at a diſtance, and were then going to Andoas. They received my wife on board with kindneſs truly affectionate, ſhewed every attention to her wants, and conducted her to that village. Here ſhe might have ſtopped ſome days to reſt herſelf and recruit her ſtrength, (and well may it be conceived ſhe had great need of reſt,) but, indignant at the conduct of the miſſionary at whoſe mercy ſhe was left, and with whom for that reaſon ſhe was obliged to diſſemble, ſhe reſolved on making no ſtay at Andoas, nor would even have ſtopped a ſingle night had it been poſſible to be avoided.

A great revolution in the miſſions of Spaniſh America dependent upon Lima, Quito, Charcas, and Paraguay, founded and adminiſtered to by the Jeſuits, for from one to two centuries, had recently taken place. An unexpected order from the court of Madrid expelled them from all their colleges and miſſions; they had in conſequence been every where arreſted, put on board, and tranſported to the pope's dominions. This event, however, had occaſioned no more diſturbance than would have done the change of a village-rector. In lieu of them, the ſecular clergy were ſubſtituted, of which claſs was the individual who officiated as miſſionary at Andoas, an individual whoſe name I wiſh to baniſh from my memory. Madame Godin, ſtripped of almoſt every thing, not knowing otherwiſe how to teſtify her gratitude to the two Americans who had ſaved her life, took from her neck two chains of gold, ſuch as are uſually worn in this country, of about four ounces weight, and gave one to each of them, whoſe admiration at the richneſs of the preſent equalled that they would have experienced had the heavens opened before them; but the miſſionary, in her very preſence, took poſſeſſion of the chains, and gave the poor Americans in lieu about three or four yards of coarſe cotton, ſuch as is manufactured in the country, and called Tucuyo. Conduct thus infamous exaſperated my wife to ſuch a degree that ſhe inſtantly demanded a canoe and men, and the next day ſet out for Laguna. A female American at Andaos made a cotton petticoat for her, which ſhe ſent to pay for immediately on reaching Laguna, and which ſhe preſerves with care, with the ſoles of the ſhoes of her brothers, converted by her into ſandals;—mournful tokens, rendered dear to me as they are to her herſelf!

While my wife was yet wandering in the woods, her faithful negro, with a party of Americans from Andoas, aſcended the river. M. R. thinking more of his own affairs than forwarding the boat which ſhould recall his benefactors to life, ſcarcely reached Andoas before he departed with his companion and baggage for Omaguas. The negro, on reaching the hut where he left his miſtreſs and her brothers, traced them through the woods, in company with his companions, until he came to the ſpot where their corpſes laid, already putrid and uncognizable. At ſight of theſe, perſuaded that no one had eſcaped death, the negro and his companions returned to the hut, collected what had been left there, and again reached at Andoas before my wife arrived there. The negro thence repaired to M. R. at Omaguas, and delivered to him the property of his

miſtreſs. This man was not ignorant that M. Grandmaiſon, who had reached Loreto, awaited there with impatience the arrival of his children. A letter in my poſſeſſion even proves that my father-in-law, informed that the negro Joachim was at Omaguas, adviſed Triſtan to repair thither and bring him forward; but neither Triſtan nor M. R. thought fit to ſatisfy him, and ſo far from complying with his requeſt, M. R., of his own accord, ſent the negro back to Quito, keeping the property he had brought back with him.

You know, Sir, that Laguna is not ſituate on the Amazons, but ſome leagues up the Guallaga, a tributary of the former river. Joachim diſmiſſed by M. R. did not in courſe proceed to Laguna in ſearch of his miſtreſs, whom he imagined dead, but returned to Quito, and thus have we loſt his ſervices. You will certainly be far from gueſſing the excuſe of M. R. for ſending away a faithful ſervant who was ſo much wanted by us. "I was afraid," ſaid he in anſwer to this enquiry, "that he would "murder me." What, replied I, could have given birth to a ſuſpicion of ſuch intention in a man whoſe zeal and fidelity were ſo well known to you, and with whom you ſo long had travelled? If you apprehended he might diſlike you from imputing the death of his miſtreſs to your negligence, what prevented your ſending him forward to M. Grandmaiſon, who exacted this of you, and who was ſo nigh at hand? At leaſt what hindered your putting him in priſon? You lodged with the governor of Omaguas, who would readily have complied, had you made him ſuch a requeſt.

In the meantime Madame Godin, with the canoe and crew from Andoas, had reached Laguna, where they were received with the greateſt politeneſs by Dr. Romero, the new chief of the miſſions, who, by his kind treatment during ſix weeks that ſhe remained with him, did much towards re-eſtabliſhing her health, but too much impaired, and making her forget her misfortunes. The firſt care of this reſpectable character was to forward an expreſs to the governor of Omaguas, to inform him of the arrival of Madame Godin, and the languid ſtate of her health. Upon this intelligence M. R. could do no leſs, having promiſed to render her his ſervices, than haſten to join her, bringing with him four ſilver diſhes, a ſilver ſaucepan, a velvet petticoat, one of Perſiana, and one of taffety, ſome linen, and other trifles, belonging to her brothers as well as herſelf; adding, that all the reſt were rotten, forgetting that bracelets, ſnuff-boxes, and roſaries of gold, and ear-rings ſet with emeralds, were not ſubject to rottenneſs, any more than various other effects. "Had you," ſaid Madame Godin; "had you brought back my negro, I ſhould have learnt from him what he had done with my property found in the hut. But of whom, reſpecting it, am I now to inquire? Go your ways, Sir; it is impoſſible that I can ever forget that, to you, I owe all my misfortunes and all my loſſes; manage henceforward as you may, I am determined you ſhall make no part of my company." My wife had but too much reaſon on her ſide, but the interceſſions of M. Romero, to whom ſhe could refuſe nothing, and who repreſented to her that, if ſhe abandoned M. R., his condition would be deplorable, at length overcame her repugnance, and induced her to conſent he ſhould yet continue with her.

When Madame Godin was ſomewhat recovered, M. Romero wrote to M. Grandmaiſon, informing him that ſhe was out of danger, and requeſting him to diſpatch Triſtan to accompany her to the Portugueſe veſſel. He likewiſe wrote to the governor, acquainting him that he had repreſented to Madame Godin, whoſe courage and piety he could never ſufficiently admire, that ſhe was yet merely at the beginning of a long and tedious voyage; and that, though ſhe had already travelled upwards of four hundred leagues, ſhe had yet four or five times that diſtance to paſs before ſhe reached Cayenne; that, but juſt relieved from the perils of death, ſhe was about to incur freſh

danger; concluding with offering, if ſhe choſe to return, to cauſe her to be eſcorted back in perfect ſecurity to her reſidence of Riobamba; to theſe he added, that Madame Godin replied, "She was ſurpriſed at his propoſals; that the Almighty had preſerved her when alone amid perils in which all her former companions had periſhed; that the firſt of her wiſhes was to rejoin her huſband; that for this purpoſe ſhe had begun her journey; and, were ſhe to ceaſe to proſecute her intention, that ſhe ſhould eſteem herſelf guilty of counteracting the views of Providence, and render uſeleſs the aſſiſtance ſhe had received from her two dear Americans and their wives, as well as all the kindneſs for which ſhe was indebted to him, and for which God alone could recompenſe them." My wife was ever dear to me, but ſentiments like theſe add veneration to tenderneſs. Triſtan failing to arrive when expected, M. Romero, wearied with waiting for him in vain, equipped a canoe, and gave directions for the tranſport of Madame Godin, without halting any where, to the Portugueſe veſſel. Then it was that the governor of Omaguas, knowing of her coming, and that ſhe was to ſtop no where by the way, diſpatched a canoe to meet her, loaded with refreſhments.

The Portugueſe commander, M. de Rebello, hearing of her approach, fitted out a pirogue, commanded by two of his men and ſtored with proviſions, to meet her, which they did at the village of Pevas. This officer, the better to fulfil the orders of his maſter, with great labour, and by doubling the number of oars, worked his veſſel up the river as high as the miſſion of Loreto, where he received her on board. I learn from her, that from that inſtant till ſhe reached Oyapok, throughout a courſe of nearly a thouſand leagues, ſhe wanted for nothing to render her comfortable, not even the niceſt delicacies, and ſuch as could not be expected in the country; wine and liquors which ſhe never uſes, fiſh, game, &c. were ſupplied by two canoes which preceded the galliot. The governor of Para, moreover, had ſent orders to the chief part of the ſtages at which they had to halt, with additional refreſhments.

I forgot to mention, that the ſufferings of my wife were not at an end, and that one of her thumbs was in a very bad ſtate, owing to its being wounded by thorns in the wood, which had not yet been extricated, and which had not only occaſioned an abſceſs, but had injured the tendon and even the bone itſelf. It was propoſed to take off the thumb, but, by dint of care and fermentations, ſhe had only the pain to undergo occaſioned by the extraction of two ſplinters at San Pablo, but ſhe entirely loſt the uſe of the tendon. The galliot continued its courſe to the fortreſs of Curupa about ſixty leagues above Para. M. de Martel, knight of the order of Chriſt, and major of the garriſon of Para, arrived there the ſucceeding day, by order of the governor, to take command of the galliot, and conduct Madame Godin to Fort Oyapok. A little beyond the mouth of the river, at a ſpot off the coaſt where the currents are very violent, he loſt one of his anchors, and as it would have been imprudent to venture with only one, he ſent a boat to Oyapok, to ſeek aſſiſtance, which was immediately forwarded. Hearing by this means of the approach of Madame Godin, I left Oyapok on board a galliot belonging to me, in view of meeting her; and, on the fourth day of my departure, fell in with her veſſel oppoſite to Mayacare. On board this veſſel, after twenty years' abſence, and a long endurance on either ſide of alarms and misfortunes, I again met with a cheriſhed wife, whom I had almoſt given over every hope of ſeeing again. In her embraces I forgot the loſs of the fruits of our union, nay, I even congratulated myſelf on their premature death, as it ſaved them from the dreadful fate which befel their uncle in the wood of Canelos beneath their mother's eye, who certainly could never have ſurvived the ſight. We anchored at Oyapok the 22d July 1770. I found in M. Murtel an officer as much diſtinguiſhed by his acquirements as by his prepoſſeſſing

exterior. He has acquaintance with moſt of the languages of Europe, is an excellent latiniſt, and well calculated to ſhine on a more extenſive ſcene than Para. He is a deſcendant of the illuſtrious French family of ſimilar name. I had the pleaſure of his company for a fortnight at Oyapok, whither M. de Fiedmont, governor of Cayenne, whom the commandant of Oyapok, adviſed of his arrival by expreſs, immediately diſpatched in a boat with refreſhments. We cauſed the Portugueſe veſſel to undergo a repair, which it much wanted, and refitted it with ſails to enable it to ſtem the currents on its return. The commandant of Oyapok gave M. Martel, moreover, a coaſt-pilot, to accompany him to the frontiers. I offered to go ſo far as his conſort on board my galliot, but he would ſuffer me to proceed no farther than Cape D'Orange. I took my leave of him with thoſe feelings which the polite attention and noble behaviour of that officer and his generous nation were ſo well calculated to inſpire in me, as well as my wife, a conduct on the part of either, which I was led to expect from what I had individually experienced on my former voyage.

I ſhould previouſly have told you that, when I deſcended the Amazons in 1749, with no other recommendation to the notice of the Portugueſe than aroſe from the remembrance of the intimation afforded by you in 1743, that one of the companions of your travels would follow the ſame way, I was received in all the Portugueſe ſettlements, by the miſſionaries and commandants of the forts, with the utmoſt courteſy. On paſſing San Pablo I purchaſed a canoe, in which I deſcended the river to Fort Curupa, whence I wrote to the governor of Grand Para, M. Francis Mendoza Gorjaõ, to acquaint him of my arrival, and beg permiſſion of ſailing from Curupa to Cayenne, whither I intended to repair direct. He favoured me with ſo polite an anſwer, that I made no heſitation of quitting my intended cruiſe and taking a longer, in order to thank him and pay him my reſpects. He received me with open arms, and inſiſted on my making his houſe and table my own during a week that I ſtopped with him; nor would he ſuffer me to depart before he ſet off himſelf for St. Louis de Marinhan, whither he was about to go on his circuit. After his departure, I remounted the river to Curupa with my canoe, eſcorted by one of greater dimenſions, ſent with me by the commandant of that fort on my voyage to Para, a city which, as you have juſtly remarked, ſtands on a large river, conſidered, but improperly, the right arm of the Amazons, as the river of Para merely communicates with the Amazons by a channel hollowed by the tides, and called Tagipuru. At Curupa I found waiting for me, by order of the governor of Para, a large pirogue of fourteen oars, commanded by a ſerjeant of the garriſon, and deſtined to carry me to Cayenne, whither I repaired by Macapa, coaſting along the left of the Amazons to its mouth, without, like you, making the tour of the great iſland of Joanes, or Marajo. After ſimilar courteſies, unprovoked by expreſs recommendations, what had I not to expect, ſeeing His moſt Faithful Majeſty had condeſcended to iſſue preciſe orders to expedite a veſſel to the very frontiers of his dominions, for the purpoſe of receiving my family on board, and tranſporting it to Cayenne?

To reſume my narrative.—After taking leave of M. de Martel off Cape D'Orange with thoſe reciprocal ſalutes common with ſailors, I returned to Oyapok, and thence to Cayenne.

Here I was engaged in a law-ſuit. Triſtan demanded of me the wages I had promiſed him of ſixty livres per month. I offered to pay him for eighteen months, the utmoſt time the voyage could have required, had he ſtrictly followed his inſtructions. The ſentence pronounced by the ſuperior council of Cayenne condemned him to render me an account of from ſeven to eight thouſand franks, the value of effects I had committed to his care, deducting one thouſand and eighty for the eighteen months' ſalary I had offered

offered him; but the wretch, after dealing treacherouſly with me as he had done; after cauſing the death of eight perſons, including the American who was drowned, and all the misfortunes which befel my wife; in ſhort, after diſſipating the whole of the effects I had entruſted with him, proved inſolvent; and, for my part, I judged it unneceſſary to augment the loſſes I had already ſuſtained by having to ſupport him in priſon.

I conceive, Sir, that I have now complied to the full with your requeſt. The narrative I have given, by recalling the mournful ſcenes I have depicted, has coſt me infinite anguiſh. The law-ſuit with Triſtan, and the illneſs of my wife on reaching Cayenne, a conſequence but too natural of the ſufferings ſhe had undergone, did not admit of my venturing to expoſe her earlier than the preſent year (1773), to ſo long a voyage by ſea. At preſent ſhe is, with her father, in the midſt of my family, by whom they have been tenderly received. M. de Grandmaiſon had originally no intention of proceeding to France, but merely meant, by his voyage, to ſee his daughter ſafe on board the Portugueſe veſſel; but finding old age creep on apace, and penetrated with the moſt lively grief at the intelligence of the ſad death of his children, he abandoned all, and embarked with her, truſting the care of his property to his other ſon-in-law, M. Savula, who reſides at Riobamba. For my wife, however ſolicitous all about her to enliven her ſpirits, ſhe is conſtantly ſubject to melancholy, her horrible misfortunes being ever preſent to her imagination. How much did it coſt me to obtain from her the relations requiſite for the judges in the courſe of my lawſuit! I can even readily conceive that, from delicacy, ſhe has abſtained from entering into many details, the remembrance of which ſhe is anxious to loſe, and which, known, could but add to the pain I feel. Nay ſhe was even anxious that I ſhould not proſecute Triſtan, compaſſionating even that wretch; thus following the gentle impulſe of a heart inſpired with the pureſt benevolence, and the genuine principles of religion!

AN ABRIDGED RELATION

OF A

VOYAGE TO PERU,

Undertaken by Gentlemen of the Royal Academy of Sciences, to meaſure the Degrees of the Meridian near the Equator, whereby to infer the Figure of the Earth. — By M. BOUGUER.

TRANSLATED FROM THE FRENCH.

THE Academy has been ſo diligent in publiſhing every thing it has done to determine the magnitude and figure of the earth, that I am warranted to ſuppoſe the aſſembly perfectly inſtructed with the ſtate of the queſtion *. The experiments already made to aſcertain the weight of bodies which are found to diminiſh therein in proportion as they draw towards the equator; the various operations undertaken in France to meaſure the extent of the degrees of both latitude and longitude; every thing, indeed, concurs to ſatisfy us, that the earth is not completely ſpherical; but theſe very experiments and operations are known to lead to oppoſite concluſions as to its real deviation from this form. Geometry and phyſics ſeemed here ſo much in contradiction with each other, that none were ſufficiently aware of the means of reconciling them; it was a controverſy to which the learned themſelves gave riſe, and not one of theſe diſputes deemed purely ſpeculative, and of no importance in practice: even the academy itſelf were undecided; nor were its doubts entirely laid at reſt until ſome voyages had been accompliſhed to the pole and the equator. The errors to which all our operations are liable, are not to be corrected by comparing, only, degrees of latitude within a ſmall extent; their inequality is not manifeſt enough to be depended on: it is a very different thing to compare the degrees meaſured in regions very remote, as is the pole and the equator, from each other. The difference produced from the ſum of the whole of the ſmall differences of theſe meaſured degrees, muſt have, neceſſarily, by reaſon of its magnitude, diſengaged us from thoſe errors not to be avoided by calculating the difference of one degree from another ſeparately; and the conſequences drawn from the mode of the firſt calculation, had acquired a certainty the latter could not give.

If towards the perfecting navigation it had been conceived neceſſary to aſcertain the magnitude of the degrees of it, it was not of leſs conſequence to be acquainted with its exact figure. They were not able to diſtinguiſh whether the accidents, which happen even now, too frequently at ſea, ought or not to be imputed to the negligence of pilots, not ſcrupulouſly enough attentive to the precepts of their art, or whether the evil were not to be traced to a higher ſource,—to the imperfectneſs of the art itſelf, by the maxims of it being chiefly founded upon the ſpherical figure of the earth, of which it ought neceſſarily to be aſſured, as well as of the circumſtance, if ſuggeſted to it, of the imperceptible irregularity of the figure. Setting aſide every other advantage which may

* One part of this diſcourſe was publicly read in the Aſſembly of the Royal Academy of Sciences, 14th November 1744.

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have preſented itſelf in our way, we could not fail to propoſe to ourſelves a variety of verifications on different ſubjects; to labour at a deſcription, and to correct the maps of the countries through which we had to paſs; to make obſervations on the loadſtone, examine the weight of the air, its degrees of condenſation, elaſticity, refraction, and many other things, as occaſion ſhould offer. Nor even, perhaps, would all theſe neceſſaries, duly conſidered, and taken in the aggregate, be eſtimated of leſs importance, than what we regarded as the principal object of our miſſion. The project of the voyage of the academicians to the polar circle was ſubſequent to ours; it has been a much ſhorter one, and the public has already happily reaped the fruits of it; at leaſt to the extent poſſible from the nature of the thing, until they ſhall form to themſelves a common reſult, the laſt object of every voyage undertaken. With regard to ourſelves, whoſe deſtination was to the ſouth, and to encounter difficulties not to be imagined, we had to make our way to the equator; and it was clear enough we had no buſineſs beyond it, ſince the degree of the meridian could undergo but little change on the other ſide; and if we had proceeded far enough, we ſhould have found them equal to thoſe of France. It cannot be doubted that there is ſome ſort of conformity between the two hemiſpheres of the north and ſouth: if the degrees enlarge on one ſide, they muſt, of conſequence, do the ſame on the other, even when not exactly ſubject to the ſame law. It behoved us, then, to be ſtationed at the equator, to determine, as this was neceſſary, the inequality, whether in exceſs, or lack, when at the greateſt. M. Le Comte de Maurepas, whoſe love for the ſciences urged him to every thing that might contribute to their advancement, loſt ſight of none of the advantages to be derived from our voyage, that could reconcile himſelf to the undertaking; he ſmoothed all our difficulties; indeed, we have felt at the extremities of the globe, that we had been travelling under his auſpices. We were three, M. Godin, M. de la Condamine, and myſelf, all academicians, not reckoning M. de Juſſieu, regent doctor of the faculty of medicine at Paris, brother of the two academicians of the ſame name, who joined us after our departure. This gentleman's employment was to attend, as he did with exemplary care, to the natural hiſtory of the countries through which we travelled; and in this he was to be aſſiſted by M. Senergues, ſurgeon, who, it was conceived, might alſo ſometimes render much aſſiſtance to us. We had need of the aid of many perſons, to draw, to examine the calculations, or to explore the country with us: for which purpoſes, they appointed M. Verguin, engineer of the marines, and Meſſrs. Couplet, Deſodonnais, de Morainville, and Hugot, the laſt a clock-maker, who was to have the charge and care of our inſtruments.

M. Godin had more pretenſions than one to be placed at the head of our company; beſide being my elder in years, he alſo had the merit of propoſing the voyage. For my own part, I had no intention of having any thing to do with the enterprize, when every thing being prepared and the period for its departure approaching, ſeveral of the mathematicians or aſtronomers on whom much reliance were placed, found themſelves in a ſituation, from perhaps their private affairs attaching them to Paris, or other cauſes, to be unable to give efficacy to their zeal, which determined me to conquer the repugnance which the weak ſtate of my health had always given me to ſea-voyages. In the meantime, though our abſence, from many particular incidents to which I was not the leaſt acceſſory, became very long and tedious, I ſhall not, I am ſure, repent of having raſhly come to the reſolution I did, if I have the gratification of knowing that my individual efforts have been of public utility.

It muſt be remembered, we were not limited to meaſure the extent of a ſingle degree of the meridian; the arch we aſcertained contained more than three; ſo that our labour

labour in this ſingle place has been three times longer, and more painful, than that experienced in Lapland, which has received ſuch well-earned applauſe. On the other hand, if we have had to overcome many difficulties, it is certain many of them were inſeparable from ſuch undertakings; when it was neceſſary to croſs the ocean to a country ſo diſtant, as to render all communication with Europe exceedingly difficult, and when the ſucceſs of the miſſion depended on ſuch a number of circumſtances, and the concurrence of ſo many perſons; the moral difficulties are then multiplied, and unite themſelves with local and phyſical ones. The firſt have been greater than can be deſcribed, and the extent of the latter may be conceived when you are informed, that the vaſt height of the mountains, which in Europe has commonly contributed to accelerate theſe operations, were to us the greateſt hindrance; either from the circumſtance of being ſtationed ſo high as to be enveloped in clouds, or having our ſignals carried away by the tempeſts, and being frequently reduced to the neceſſity of having regard to nothing but our own ſafety. We have ſometimes been obliged to purchaſe, for a month and a half's patience, a ſingle quarter of an hour of fine weather; and in one of theſe ſtations we have been longer detained, than we ſhould have been toiling through a whole meridian in Europe. We were working, too, in a country, to which even its inhabitants themſelves were ſtrangers; and obliged continually to penetrate into deſarts, where no paths but thoſe made by wild beaſts were to be diſcovered.

We could not, without a paſſport, enter the territories under the domination of Spain, which are ordinarily interdicted to every deſcription of ſtrangers to all places beyond the ſeas. We were even in want of a ſpecial permiſſion. His Catholic Majeſty did not ſimply permit our operations to be made in whatever place we might chooſe in Peru, but declared himſelf the protector of them, by making known his pleaſure in this regard to his viceroys and to his audience at Quito; and, at the ſame time, nominated two marine officers lieutenants of ſhips, Don George Juan, commandant, D'Aliaga, of the order of St. John of Jeruſalem, and Don Antonio de Ulloa, to aſſiſt in our work. We found them at Carthagena, in America, where they were arrived ſome months before us, directly from Cadiz. It was a flattering circumſtance for the two united nations, to be able to turn their thoughts towards the attempt of examining the figure of the earth, while the fortunate ſucceſs of their arms aſtoniſhed Europe, and turned its attention to very different objects. In the meantime, if we had the good fortune to ſucceed, the advantages to be derived from our voyage would be common to every nation, all would equally be benefited thereby. It is fit Kings ſhould not limit the benefits ariſing from their glorious undertakings to one reign or one age; by generouſly extending them to the whole human race, they ſhow themſelves kings or as fathers of every people: this trait of goodneſs and wiſdom is conſpicuous in every thing commanded by the cheriſhed ſovereign to whom we are ſubjects.

I ſhall divide this diſcourſe under different heads, in order the better to deſcribe a country we have had too many occaſions to become well acquainted with. Our French travellers have penetrated but a little way into it, and the idea they have formed to themſelves of the country, have ordinarily been founded upon the relation of perſons who have never been induced to a ſtrict examination of what they beheld. Hence it occurred to me, a ſomewhat circumſtantial detail would afford pleaſure, until I can give a complete relation of the whole journey. Beſide this detail may throw ſome light upon the operations of the meaſuring of the globe, of which I have given in an account.

PART

PART I.

DESCRIPTION OF THE PART OF PERU COMPREHENDED BETWEEN THE SEA AND THE GREAT CHAIN OF MOUNTAINS KNOWN UNDER THE NAME OF CORDELIER.

WE embarked in a King's ſhip in the road of Rochelle the 16th of May 1735, and made our way very ſucceſsfully to Saint Domingo, after having firſt put into Martinique, where we remained a few days. We made a variety of obſervations in both theſe iſlands, ſome of which are noticed in the memoirs of the Academy. We meaſured the height of the different mountains we had occaſion to aſcend, to ſatisfy our minds in certain reſearches we propoſed to ourſelves; we tried our ability, without being ſenſible of it, to ſcale other mountains incomparably higher; thoſe which form the famous chain known under the name of Cordelier, and of which but little is known than the name in Europe. We made a conſiderable ſtay at Saint Domingo, and left it the 30th of October for Carthagena; from whence we made our way to Porto Bello, and having croſſed the iſthmus, we embarked at Panama on the South Sea, and on the 9th of March 1736, we ſaluted, for the firſt time, the coaſt of Peru, and anchored in the road of Manta, where we propoſed to ourſelves to harbour. It is already known M. Condamine and myſelf ſeparated here from the reſt of our companions, by reaſon that we believed we might make ſome uſe of our time in this part of the coaſt, on which the heavy rains had already ceaſed to fall, and we were aſſured it would be ſome time yet ere they abated to the ſouthward, and that the way to Quito would be impaſſable until the month of June.

We ſaw M. Godin, with the reſt of the company, ſet ſail for Guayaquil, and had no cauſe to regret the reſolution we had taken to remain behind; our ſtay purchaſed us a perfect acquaintance with this coaſt, which being the part jutting moſt to the weſt of South America, required to be aſcertained with particular exactneſs. We examined the length of the pendulum under the equator, and I was myſelf much privately taken up with aſtronomical refractions.

The day after M. Godin's departure, we went to the village of Monte Chriſti, ſituated at the foot of the mountain of that name, famed in theſe ſeas, and known to all navigators coming from a diſtant country; it is the reſidence of the antient inhabitants of Manta, who, to ſhelter themſelves from the inſults of pirates, have removed from the coaſt where they formerly reſided. We were lodged in the King's houſe *, which ſhould be conſidered as a Town-houſe †, though, like the reſt of the cabins, only conſtructed of bamboos; it was raiſed upon piles about ſeven or eight feet in height; we aſcended it by a ſtair formed of two bamboos of large ſize, in which they had contrived notches to receive one's feet. On Thurſday the 15th, in the morning, the Indians came to viſit us, preceded by their Alcades or magiſtrates, carrying in their hands their wands, as diſtinctive marks of their authority; they preſented to us ſome fruits, and announced to us that they had orders, by letters from Don Joſeph de Olabés y Gamoroa, commandant of Puerto Viejo, to ſhew us the ſame attention as to himſelf. We choſe a more commodious ſtation as an obſervatory, at about a third of a league from the village; we there eſtabliſhed ourſelves under a roof, raiſed by our good

* La Caſa Real.

† Hotel de Ville.

friends the Indians with much facility, conſidering the extreme ſimplicity of the architecture common to this country. M. Condamine and myſelf made an unſucceſsful attempt to put in practice the method I ſuggeſted in the memoirs of the Academy for 1735, to aſcertain the preciſe moment of the equinox. The ſun was viſible in the evening, but not in the morning; this circumſtance, joined to other accidents, deprived us of the correſpondent obſervations we were in want of. We were prevented by a cloudy ſky from obſerving ſome eclipſes of the ſatellites of Jupiter; but it permitted us to notice the end of the eclipſe of the moon, of the 26th of March 1736, in the evening; which, from the circumſtance of its fixing the ſituation of all this coaſt, the moſt weſterly of South America, is become an extremely important obſervation *. We learn from it that Monte Chriſti, whoſe latitude is 1° 3′ S. is fourteen leagues to the weſt of the meridian of Panama or Porto Bello, and the cape St. Lorenzo, which is near four leagues more to the weſt, is about fifty-four minutes of a degree to the weſt of the ſame meridian.

I was, with reſpect to myſelf, more fortunate in the obſervations I made at the mouth of the river De Jama, north of the Cape Paſſado, at 0° 9′ ſouth of the equator. We did not go to this place until we had firſt made our viſit to Don Joſeph de Olabes at Puerto Viejo, by whom we were very well received. Puerto Viejo is one of the oldeſt Spaniſh ſettlements in Peru. It yet has the title of city, which it merits as little as that of port, being a very inland town, and the river that paſſes it very inconſiderable. We found notwithſtanding a great number of Spaniards here, but for the moſt part very poor; they have wax and cotton, and cultivate both the cocoa and tobacco, for exportation, but the badneſs of their roads and a defective navigation depreſſes their commerce; it is even a ſort of hazard that throws an opportunity in their way for the ſale of their commodities.

We noticed in this, as in ſeveral other places we paſſed, ſome very pretty houſes, under roofs thatched with ſtraw or the leaves of the palm-tree, containing a great number of chambers, and which to their other embelliſhments, if we may uſe the term, were added galleries and balconies. The bamboo ſerves for beams, as well as joiſts and boards. Theſe bamboos of which they make ſuch a variety of uſes, are as thick as a man's leg; when they form boards of them, they ſplit them down the whole length on one ſide, then open them by breaking the diaphragm within, and ſpread them flat; thus prepared, theſe boards are as long as ours, and ſometimes fifteen inches in breadth; and of theſe they make their floors, their partitions, and window-frames; all the parts of the building are united by the roots of trees, or cords made of the bark or rind, ſo that not a particle of iron enters into the compoſition or conſtruction of the edifice; and nothing can be more accommodating to the natural indiſpoſition of the people of this country to labour; who, were they inclined to give themſelves a little

* The moon, although entirely ſhadowed, was always viſible, her emerſion only was obſervable.

H.	M.	S.	
7	26	40	—Firſt moment of emerſion.
7	34	31	—Ariſtarcus appeared.
7	47	00	—Plato, ditto.
7	52	17	—Tycho began to emerge.
7	53	23	—Tycho totally emerged.
7	57	47	—Manilius emerged.
8	06	24	—Mare Serenitatis, out of ſhadow entirely.
8	13	25	—Mare Oris, out of ſhadow entirely.
8	19	17	—Petavius emerged.
8	20	18	—Langrenus, ditto.
8	23	27	—Eclipſe ends.

more

more trouble, might find more ſolid and durable materials in their foreſts. It is true, it would coſt them more to erect their habitations in a better and more careful manner; beſides, generally they are in want of nothing elſe than a ſhelter from the extreme heat of the ſun, or the frequent heavy rains. Walk or move as gently as you can in theſe houſes, the whole edifice ſhakes. Accidents by fire, too, are much to be apprehended, but as their furniture partakes of the ſimplicity of the building, the damage can never be very conſiderable.

From Puerto Viejo we went to Charapoto, another Spaniſh ſettlement, where there are yet ſome Spaniards to be met with. From this place we proceeded to Canow, and afterwards to the north of the Cape Paſſado. On our way to Canow we paſſed by the bay of Caracas, a port, the juttings of which are formed by nature. This bay, ſuppoſed to have ſome reſemblance to that of the ſame name in the North Sea, has a very narrow entrance, but is nevertheleſs very ſpacious; and there is much wood in the neighbourhood of it, proper for the conſtruction of ſhips; and the Spaniards, who founded a city near the entrance of it, the ruins of which are yet evident, continue here from time to time, eſtabliſhing timber-yards.

In all the places not abſolutely deſert, we found and had a reſource in bananas, and ſome other fruits, milk, eggs, and poultry. In other places we ſubſiſted upon rice, and what proviſions we carried with us; the bananas, and maize-cakes, which had no other fault than being exceedingly dry, ſerved us inſtead of bread.

The Indians provided us with horſes, of which we had much need; and they taught us to profit of the flux and reflux of the tide, by directing our way upon the flat ſhores, where no roads were found made over the heights of the coaſt. Horſes multiply very much in this country, and there has been a great number of them ſince the Spaniards have tranſported them from Europe; their goodneſs does not ariſe from the care taken of them, as is the caſe in our iſlands; they ſuffer them always to run out even during the night, and never ſhoe them; they are ſometimes ſo lean and ſtarved as to excite the compaſſion of a cavalier, but notwithſtanding this, they are excellent and truly ſerviceable. We availed ourſelves of another ſort of conveyance, when we had occaſion to keep to the coaſt. We found ſome pirogues, a ſpecies of canoe or boat, formed of a ſingle trunk of a tree, in which they will venture very far from ſhore, and even dare to double the cape, when the ſea is not greatly agitated.

All our propoſitions in our different coaſtings were deſigned to make us as much acquainted as poſſible with the country: but while we had in view the perfecting of geography, we did not neglect other obſervations that preſented themſelves; to multiply which it was that, being in the ſouthern hemiſphere, we conceived the deſign of coaſting now and then our way northward. I ſought principally for a commodious ſituation to obſerve the aſtronomical refractions near the horizon, and I at length found one at the mouth of the river Jama, where I fixed myſelf for near fifteen days. The obſervations I made there, joined to thoſe already accompliſhed at St. Domingo, furniſhed me with a term of compariſon which turned out exceedingly uſeful to me when I got to Quito; I noticed there the refractions to be leſs, and that, contrary to all received opinion till that time, they diminiſhed in proportion as we were above the level of the ſea.

While I was thus occupied below, I beheld, the 13th of April 1736, a very uncommon ſight, and of which there have been but few examples: I ſaw two ſuns very diſtinct, ſucceſſively ſet; they were in contact, and one exactly over the other. I do not think I ought to attribute this phenomenon to the reflection of the ſurface of the ſea, which had ſent back the ſecond image: for in this caſe the two images would have had

had a contrary motion, inſtead of deſcending with an equal one. The lower ſun, whoſe light was not quite ſo brilliant, but whoſe edge was not leſs determined than the upper one, was when I obſerved it already divided by the horizon, and did not even form a complete half-circle. It ſet, and was immediately followed by the other, which did not appear to me ſubject to any other refraction than what I had already obſerved, and for ſome days following continued to obſerve.

Moſt part of the places we have mentioned are famous in the antient hiſtory of Peru. Manta, at the time of the Incas, was the metropolis of all this country, then ſunk in the groſſeſt idolatry: the divinity they adored was competent to do them neither good nor harm; it was an emerald of the ſize of an oſtrich egg, to which they had conſecrated a temple, and attached a college of prieſts to have charge of its worſhip. Every emerald of an ordinary bigneſs partook of a ſmall portion of its divinity, were reputed her daughters, and were often brought from a great diſtance to be depoſited in the ſame place, that they might have the ſame homage rendered to them as the goddeſs their mother: this laſt was loſt on the arrival of the Spaniards; probably the Indians carried it away and concealed it. It is in vain they have ſought for the mines from whence theſe ſtones are taken; nor have they been more ſucceſsful in the perquiſitions made in another neighbouring country, further north upon the ſame coaſt, the name of which augurs a better proſpect. They pretend to be acquainted in this province, which is that of the Emerald, with the Little Mountain, in which are the richeſt of theſe mines; it is not farther than five leagues from the ſea, and is upon the ſouth bank of the river of the ſame name as the province. But, beſides the impenetrable nature of the country, almoſt throughout cauſed by the thick woods, the Indians are wiſe enough not to be very aiding in theſe ſort of reſearches: they are ſenſible, no doubt, ſhould they ſucceed, they would be opening a career of labour painful to exceſs, which themſelves alone would bear the weight, and with but little portion of the profits.

It is very probable this coaſt, notwithſtanding the relation of the firſt travellers who have gone over it to the contrary, have never been much peopled. The villages are at ten or twelve leagues diſtance from each other, and in many places twice that; and there are none of them ſituated at a ſhort diſtance from the ſea. We may hazard an opinion that this has always been the ſame: immenſe foreſts are not ſituations calculated for the ſubſiſtence of a numerous population. It is a contradiction, of which ſome writers, otherwiſe very able, have not been ſenſible; who have believed that the Gauls in the time of the Romans were more numerous than the French are now, although all the country, almoſt, was then covered with wood. We are aware, beſides, that we cannot, in the remote countries of which we are now ſpeaking, conſider foreſts as a new production: commerce alone, by the abundance it draws ſometimes from without, may furniſh the means of ſubſiſtence to a large population: but we are not left ignorant that there has ever been but little communication between the coaſt and the reſt of the continent; beſides, as we ſhall not heſitate long to prove, the inſpection of theſe places confirms this to be very probable.

We muſt not ſeek in theſe foreſts for our oaks or elms, and other trees commonly found in our woods. There are, however, to be noticed ſome which the Spaniards, from ſome vague relation, have taken for the French, or holm-oak. We ſee there alſo oranges, citrons, and olives: theſe trees have been carried there by the Spaniards, for which reaſon they cannot, any more than figs and pomegranates, be expected to be ſeen in America, but in cultivated ſpots. We may even obſerve of the

olive,

olive, that this climate is rather too warm for it, and that it would turn to better account beyond the other tropic, in the diſtricts of Chili, the moſt neighbouring upon the torrid zone. We noticed a great number of ſhrubs and plants we have not in Europe, and others which grow better in the former than in the latter country, as is evidenced by their growth. Acacias, brooms, ferns of numerous ſpecies; the prickly Cuiges, the Opuntia, the different ſpecies of aloes, not to mention the Mangliers, which even grow in the ſea, and multiply to a prodigious degree by means of their branches, which ſo intertwine as in their turn to become trunks and roots. In all theſe foreſts nothing is to be found but heavy wood, excepting only a few plants, converted by the goodneſs of the ſoil into trees. Moſt of the ſpecies, for inſtance, of the Ferule grows to a great height in Europe, principally in Pouille: but it attains to a larger ſize in the hot regions of Peru, and it yields a white wood, which, though in weight four or five times lighter than the lighteſt fir, is capable notwithſtanding of as great power. Nothing can be found more proper to make rafts, of which the uſe is ſometimes ſo neceſſary, travelling over theſe deſerts*.

It is only neceſſary to penetrate into the thickeſt places of the foreſts to find cedars, of which there are two or three ſpecies; cotton trees; and the various ſorts of ebony, or hard wood; Guyaco, and many other kinds of wood, eſteemed for their fragrance or colour, and for the fine poliſh they will receive. The trees known under the name of Maria are diſtinguiſhable by the whiteneſs of their bark, and their great height and ſtraightneſs: theſe are the only trees in Peru they can convert into maſts for ſhips; they are very flexible, nor are they ſo exceſſively heavy as almoſt all the others are. I muſt not omit noticing the palm-trees, of which I have myſelf reckoned more than ten or twelve ſpecies, yet there are many more. Conſidered in every manner, this is a very ſingular tree: its branches, or rather leaves, being at the very top of its trunk, gives it, notwithſtanding its height, the form rather of a plant than a tree. It is obſerved in the hot countries of the torrid zone, trees ſpread their roots near the ſurface of the ſoil: but the roots of many of the palms are altogether out of the ground, and the baſe of the trunk is obſerved to lift itſelf up as the tree advances in age; it will ſometimes riſe to ſix or ſeven feet, and the roots which divide form beneath a kind of trench or pyramid, in the hollow of which it is poſſible to ſhelter oneſelf.

Near the ſea theſe foreſts ſcarcely ever exceed the growth of a coppice; in proportion as you advance into land, the trees viſibly increaſe in ſize, and gradually in height, and at ſeven or eight leagues from the coaſt, and not at a ſhorter diſtance, they attain to their utmoſt elevation. This *maximum* bears itſelf up; it compriſes a very conſiderable tract, but at the ſame time of unequal breadth, varying according to ſituations; for if we continue to advance, we find the trees loſe much in their height, either becauſe the quality of the land is no more the ſame, or becauſe of the elevation of the ſoil as it approaches the Cordelier, and its not having the ſame depth of good earth; the ſpaces between the trees are filled with a prodigious quantity of plants and paraſite ſhrubs; ſome of theſe entwine the trunks and branches; others fall vertically in a ſtraight line, reſembling cords attached to their heights; the remaining voids are taken up by bamboos of all growths, ſome of them twenty or thirty feet high, and the moſt part of the larger ones thorny. When I ſay that all the trees are encumbered with plants and ſhrubs, I mean to ſay, generally; we muſt, I believe, except the Acomas, which are conſiderably larger here than in our iſlands, and which, like even ſome other trees, have appeared to me exempt from moſs. They owe, apparently, this diſ-

* The Spaniards name this wood, Wood of Balſa.

tinction to the laceous moisture of their bark, which is prejudicial to many parasite plants.

We acknowledge, on entering these woods, the truth of the observation already made by other travellers, that if the birds of America exceed ours in beauty of plumage, ours have the advantage, infinitely, in variety and sweetness of note. Instead of song, nothing is heard almost throughout the forest, but a discordant stunning noise. The clamour of the parroquets, which are seen here in great tribes, is particularly disturbing. These birds do not frequent the sea-side; to find them, we must penetrate for some leagues into the country: I have frequently eat of the small green ones, and found them very good, though their flesh may be considered rather hard. The apes, also, choose to take themselves far from the coast, and generally follow the course of the rivers and brooks. Here, also, you see the Toucan, called by the natives the Preacher, although he never opens his mouth. He bears no resemblance to any other bird, from the monstrous size of his beak, which is almost as large as his whole body. Pigeons are very common, and very good, so are also ducks, principally those which the Spaniards name Palos Reales, and which are decorated with a crest. The Galinasso is found in many places here; it is a singular species of the Coori, to the flesh of which they attribute different properties; but it is rarely made use of, by reason of its stinking smell. It differs from ours by its size, in which it is larger, and the head of it, instead of being covered with feathers, has simply a black skin upon it, of an helmet form.

The number of mischievous terrestrial animals is very great here, particularly remote from the sea and the thick recesses of the forests, and where the trees are at their loftiest growth. The lion we see there, is not one; he has much more relation with the wolf; and does not attack man. But the tigers are as large there, and savage, as those of Africa: of which, there has been at different times most terrible proofs. When, in 1740, I returned from Quito towards the sea, taking a northerly direction to measure the absolute height of the mountains which had served for our meridian, I passed by Nigonas, which is, as it were, the centre of the Province of Emeralds, and saw there many persons who had been lamed by these terrible animals: ten or twelve Indians had been torn to pieces by them two or three years before. I proceeded farther, and fixed myself in a little island formed by the meeting of the two rivers of the Emeralds and Inca. In this island we imagined ourselves perfectly secure from any attack; but, lo! the first night the tigers swam over to dispute our provisions with us, and carried off a part of them; and we were under the necessity every night of making a large fire as a protection. It is a blessing these animals, like all those offensive by the ferocity of their nature, are not teeming. Tigers are but few in Peru; but it requires but one or two of them to desolate a whole country.

The Indians, who never cross the deserts without being armed with a lance and hanger, assemble themselves at certain times to hunt these animals, and never fail, when accidents have happened to impress them with the necessity of doing so. Much also is to be apprehended from serpents, which are here very common, and of many dangerous species; among them the rattle-snake, which will not, like the most part of others, turn aside from man. Lizards are found here as large as your arm, but harmless. We will now notice those divers species of animals, of which some are considered amphibious. The Iguana has a thorny crest on his head and along his back: his form, he is so meagre and shrivelled, is truly hideous. I suspect he has the means, when he swims, of blowing himself up into a large volume, which gives him lightness, and induces a belief that he walks upon the water as upon land. They eat of this animal,

and find his flesh excellent; as also of a species of wild boar, which has a head not so long as ours, and something like a navel upon his back. I believe this last is peculiar to the woods of America; but the Taton or Armadillo is common to both continents: it is remarkable for the distinct scales or armour with which its body, head, tail, and legs, are separately covered.

The most part of the insects to be found with us are also there, but ordinarily of larger size, and sometimes so big, that Europeans consider them monstrous. Earth worms, for instance, though entirely resembling what are common to us, are as long as one's arm, and an inch in circumference. Some of their spiders are covered with hair, and as large as a pigeon's egg. We see there different species of the pismires often considerably larger than ours, and some of them venomous. Scorpions are also very common, but their sting is not of much consequence; the distress of it generally ends with a slight fever: it has, however, happened to an acquaintance of mine, beside feeling this inconvenience, to have been afflicted with a swelling of the tongue, so as to render speaking painful. I have frequently seen a little dog stung, and it only occasioned him at first to start. The stings were made chiefly in the tender part of the belly not covered with hair: the little dog did not appear at all indisposed. But there is nothing in these forests that distresses you so much as the mosquitos and maringouins; by reason they cause an uneasiness, or rather a plague, which is never ceasing, and it is very difficult to guard oneself against it. The first are a species of flies scarcely perceptible, and affect you like red-hot iron; the second are of two different species, the smallest differing little from our gnats. We are acquainted in Europe with the nature of the sting of the latter, but the poison of the maringouins is, nevertheless, more active: it causes great blisters, chiefly upon those lately from Europe, whose blood is apparently more fluid. It cannot be described with what obstinacy they seem to attack these strangers. The air is frequently darkened by their multitude, and we are obliged to be in incessant motion to defend ourselves from them; they conquer by making their way through every little hole they find in our clothes, and it is impossible to rest at night for them, unless under a tent made purposely to guard us against them. This tent has curtains of calico, and is formed like a tomb; they fasten it, when they sleep in the woods, by its two extremities or four angles to some trees; and it is a piece of furniture so absolutely necessary, that the poorest Indian is always provided with, and never journeys without it. As the maringouins strive to avoid both wind and sun, the open places they will never voluntarily infest; and many places are found entirely free of them. The inconvenience is not so great in hamlets and all cleared spots.

It will not be considered extraordinary that the country I have described should be very hot, since it is upon a level with the sea, and placed in the midst of the torrid zone. At the same, the thermometer of M. de Reaumur did not rise in the afternoon but to 26°, 27°, or 28°; in the morning, a little before sun-rise, it was commonly at 19°, 20°, or 21°. It is not to be doubted but it is the continuity of the heat which makes it seem so great in the torrid zone, for we have very frequently known the thermometer in France to rise considerably higher. The strength is exhausted by transpiration and violent sweats. The heat abates but very little during the night, and we even rise fatigued in the morning. To the degree the faculties of the soul find themselves incumbered, the lassitude of the body communicates itself to the mind; and we then find ourselves in a state of indolence, which not only prevents us from acting, but unfits us for any thing that requires application and attention. It is very possible all travellers, in passing through the torrid zone, are not equally sensible to this effect of the great heat. There is reason to believe also, that, in the end, we recover in a great measure

meaſure our uſual ſtate; provided the re-eſtabliſhment is ſufficiently ſpeedy, and no other cauſes throw any hindrance in the way.

But what will, no doubt, create ſurpriſe, is, that in theſe countries, where the heat is always ſo great, the humidity is always exceſſive; and ſo it is in all the places ſituated between the two tropics, where there is much wood. Even upon the higheſt eminences, from whence it is natural to imagine the waters ſhould run off, you ſink mid-leg into the mud. I have already intimated, that the houſes were raiſed upon piles; but this does not prevent the miſchief occaſioned by the inceſſant dampneſs excited by the heat. At certain ſeaſons, every poſſible care is required to preſerve paper, and to prevent our ſaddle and portmanteau from rotting. To attempt to fire a gun after being loaded for three or four hours, is an uſeleſs effort; and there is no means of preſerving powder, but drying it, from time to time, at ſome diſtance from a fire.

This country, the length of which I ſhall give by and by, is from forty to forty-five leagues in breadth from eaſt to weſt, being comprehended between the coaſt and the Cordelier, whoſe direction is nearly north and ſouth. Sometimes the coaſt abruptly changes its direction; and the chain of mountains, as if affected thereby, ſeems, although at ſo great a diſtance, to confine itſelf to the alteration; but it commonly takes its courſe in a direct line; inſomuch, that it is found at the leaſt diſtance from the ſea, when any gulph, like that of Guayaquil, for inſtance, penetrates far into land. Going beyond this gulph, ſouthward towards Lima, the face of the country is altered; the ſoil is covered with ſand ſeemingly depoſited by the ſea; or it poſſibly may be attributed to a contrary origin, this ſand may have fallen from the Cordelier: the country is open; and there is no wood, as on this ſide the gulph.

But what more particularly diſtinguiſhes this part of Peru, lying beyond the Guayaquil, is, that, notwithſtanding the ſky is often cloudy, there never falls any rain: a ſingularity this which gives riſe to a problem in phyſics the more difficult to be reſolved, as it depends upon the moſt perfect acquaintance with the nature of clouds. It is not ſurpriſing that Auguſtin de Zarate, who was, I believe, the firſt who ſtarted this difficulty, has not better explained it; yet I am not acquainted with any perſon, though the ſubject has occupied the attention of many naturaliſts, who has done better.

We have now to ſpeak of a phenomenon, the regular and certain effects of which is not confined to a ſmall extent of territory. The country ſubject to the rains reach as far as Panama, and is in length more than three hundred leagues; and they are at the ſame time ſo heavy and inceſſant, particularly in Choco, the moſt central province of this tract, that the people the moſt avaricious of gain have the greateſt repugnance to reſide there, although this is, of every other country in the world, that in which nature has diſplayed the utmoſt profuſion, by making the bowels of the earth a depoſitory of gold duſt. A fortune cannot fail to be made there in a little time; but there is nothing more certain than falling victims to the pernicious qualities of the climate, the humidity of which inceſſantly applied, checks tranſpiration, and ſuſpends the ſweat continually promoted by an oppreſſive heat. The other country in which rain never falls, and which is to the ſouth of the Gulph of Guayaquil, extends beyond Arica towards the deſerts of Atacama, or towards the confines of the torrid zone and the ſouth temperate zone, a ſpace of more than four hundred leagues in length by between twenty and thirty in breadth. There thunder is never heard, nor are we ever expoſed to any ſtorm. The ſoil there is always dry, or with more propriety we may obſerve, that nothing is ſeen but arid ſands. No verdure meets the eye, excepting on the banks of the rivers, which, falling from the mountains, traverſe theſe countries with unuſual rapidity. So aſſured are they of having no rain, and ſo little apprehenſive of it, that the houſes in Arica, as well

well as Lima, are never roofed; they content themſelves with mats by way of a covering, over which they throw a ſprinkling of ſoil or aſhes, to abſorb the dew and damps of the night.

That the extreme differences in the conſtitution of the atmoſphere, and the quality of the ſoil of theſe countries, have a connection with each other, cannot be doubted. The nature of the ſoil has an influence upon the lower region of the air. Foreſts, in all hot countries, notwithſtanding the ſky may be ſerene, and the air pure without, are almoſt always involved in a thick atmoſphere. The fact is certain, becauſe it is viſible; beſides, it is not difficult to explain the reaſon of it. Trees, like the earth, which is covered with corrupted vegetable and animal matter, and always expoſed to exceſſive heat, is ſubject to a perpetual waſting. The evaporation takes the appearance of a fog which riſes to no height, ſeldom above that of the trees, if we notice only the denſe part of it; but the imperceptible parts aſcend to a great height, ſufficient, ſuch is the attractive virtue of the wood, to conſtitute a ſpecies of communication between the foreſt and the clouds. The exhaled particles unite themſelves with the vapours which form the clouds, which becoming, as it were, very ſuddenly heavy, loſe their equilibrium on the bed of the air in which they are ſuſpended. While it is raining, they are in the midſt of a fog; that is to ſay, the rain falls not uſually as it does here, breaking from a cloud apparently high over our heads: more frequently in the foreſts of the torrid zone, all the upper and lower regions of the atmoſphere are equally thick, or ſurcharged.

Whatever tends to the progreſs of phyſics, is certainly not foreign to the relation of a voyage which has been undertaken to improve that ſcience. I, therefore, ſhall not be afraid of joining to the recital of facts, certain reflections ariſing therefrom, from which ſome benefit may be derived. There is every reaſon to induce a belief, that the ſmall particles of which the fogs and clouds are formed, are not ſmall ſolid ſpheres; but that they are rather, ſimply, bubbles of air. Were this not ſo, it would be impoſſible that the clouds ſhould riſe, and that they ſhould aſcend to a greater height in ſummer than winter, when the air, leſs condenſed, is leſs capable of ſupporting them. Attention to every other circumſtance, and even to the manner the evaporation of liquors is accompliſhed, will confirm this truth. In fact, whatever internal agitation may be imagined in any liquor that evaporates, the ſmall particles which are thrown out, quickly loſe all their motion by the reſiſtance of the air, if they were but ſimply thrown out, and are not poſſeſſed of a lightneſs diſpoſing them to float and riſe.

Theſe ſmall bubbles ſuſpended in the air may be diſſolved in various ways to rain. The wind, by driving them one againſt the other, may jumble and break them. The heat may become ſo violent, that the bubbles, by too great an inflation occaſioned by it, may burſt. A very contrary cauſe will produce a very ſimilar effect, when the air contained in theſe ſmall hollow ſpheres ſhall experience a too great condenſation, which will cauſe ſuch a diminution in the bulk of theſe ſmall bubbles, that they cannot buoy themſelves. When the wind coming from the ſea, bringing a cloud along with it, conducts it over a coaſt covered with wood, it can affect but little alteration in the heat. A wood reflects the rays of the ſun but in a very trifling degree; and it is certain that the heat, at a certain height above it, cannot be more intenſe than over the ſea. But the continual evaporation, we have obſerved, of the woods, further the deſcent of the clouds and their diſſolution; whereas, in the environs of Lima, and to the ſouth of Guayaquil, nothing like this happens.

The winds, which prevail moſt in theſe parts, ordinarily blow from the ſea and ſouth-weſt: but when a cloud driven by this wind reaches the land, it becomes expoſed to a

new heat, that is to ſay, to one different from what it received from the ſea; and which ariſes from the reflection, and the neighbourhood of ſoil, compoſed of nothing but ſand. Thus the cloud is likely to be leſs diſpoſed to fall by its own weight, as the volumes of each of its bubbles muſt neceſſarily augment. It is true, if the dilatation were already too great, from the facility the ſmall portion of the confined air had to receive the heat, the neighbourhood of an overheated coaſt would only tend to accelerate the burſting of the bubbles, and rain would be the more certain. So there is oftentimes a ſufficiency of rain where the irrigation of the ſoil is practiſed; but it is more common to obſerve the clouds paſs over to a diſtance of twenty-five or thirty leagues beyond, where they are met by the Cordelier, which, as a high wall, intercepts every thing not high enough elevated to fly over it.

April 23, 1736.—It is now a month and a half ago ſince we firſt viſited theſe deſerts, and it became neceſſary that we ſhould think of making our way to Quito, the roads to which we had now reaſon to expect, from the ceſſation of the rains, were now beginning to be practicable. Being at this time at the mouth of the river Jama, which is nearly upon the ſame parallel with Quito, M. Condamine and myſelf agreed to ſeparate and take different routes. M. Condamine followed the coaſt towards the north in ſearch of the river of Emeralds, continuing to lay down a map of the country he croſſed in re-aſcending it. With reſpect to myſelf, retracing back my ſteps, I took a ſouthern direction for Guayaquil, and penetrated the foreſts, the ſurface of which was ſo overflowed, that I was frequently, when mounted on horſeback, up to the knees in water: it was, in truth, no other than a continual moraſs or ſlough. The violent efforts by the mules to extricate themſelves, expoſed one every inſtant to the hazard of being daſhed againſt a tree.

Having reached Guayaquil, I quitted it the ſame day, of courſe could not myſelf acquire much knowledge of it. The town is large, and one of the moſt flouriſhing of all the country. Its advantageous ſituation renders it the ſtaple of the commerce of both Panama and Lima; and though it is at a conſiderable diſtance from Quito, it is, properly ſpeaking, the port of this latter place. It is big enough, and divided into two towns, called the old and new. The houſes, which are all built of wood, are ſeparated but by ſimple partitions. Its ſituation is five leagues from the ſea, upon the weſtern bank of a wide and deep river, immediately below its confluence with the Daule, which is alſo a very fine river. Almoſt all the rivers falling from the Cordelier into the Pacific Ocean, are no other than impetuous currents, notwithſtanding the great quantity of water that comes down. But theſe rivers come down from too great an height, and ſo rapid are their courſes to the ſea, that they have not time to enlarge themſelves. Some are confined within very narrow beds, particularly the moſt part of thoſe which croſs the countries on this ſide the Gulph of Guayaquil; others, running over a ſandy ſoil, are much wider; they frequently form great ſheets of water, preſerving, at the ſame time, the rapidity impreſſed by their fall. But the river Guayaquil, in falling into the gulph of that name, has a more gentle courſe, by reaſon that it runs almoſt parallel with the Cordelier; its deſcent is not ſo great; it is ſubject to flux and reflux; and is the recepticle of many other rivers. All theſe circumſtances render it more navigable, and abounding in fiſh; but, at the ſame time, it is full of Caymans, or crocodiles, ſo common in America.

I embarked upon this river, aſcending it, and, on the 19th May 1736, reached Caracol, ſeated at the foot of the Cordelier; a place left by M. Godin about three days before. This gentleman, although he had all the mules of the province at his command, was under the neceſſity of leaving here nearly a fifth part of our equipage, by

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reaſon, on account of the impracticability of the roads, he was obliged to render the weight as moderate as he could. He continued his route, and entered Quito on the 29th May, one year and ſome days more, from our departure from Europe. The manner of the reception of our companions in this capital is already known; all the different corporate bodies of the city haſtened to congratulate them on their arrival, and they were lodged in the palace until they could provide convenient houſes for themſelves.

PART II.

IT was the 10th of June before I reached Quito, having been detained at Caracol for want of a carriage, and my health had ſuffered conſiderably by the fatigue of the journey from Rio Jama, and more particularly from Puerto Viejo to Guayaquil. However, I ſet about, in my turn, to ſurmount the difficulties of the chain of mountains before me, which took me up ſeven days to accompliſh, although I did not eſtimate the paſſage over at more than nine or ten leagues. But it is an extremely rugged aſcent, interrupted by an infinity of different precipices, on the brinks of which we are often obliged to walk; we are obliged too, many times to paſs a little river called Ojiva, in which many people are loſt every year; though it is not a wide torrent, its rapidity is frightful: we paſs it for the laſt time, we remove ourſelves from it, and yet we dread it, ſo much it ſeems to threaten the traveller, even when at a diſtance from it, with its roar. Sometimes, deſcending, a deep ravine preſents itſelf, which we have difficulty to get over, and often a whole day is conſumed only in aſcending its oppoſite ſide, and then we find ourſelves but at a little diſtance from the place we left in the morning. The laſſitude of the mules is ſo great, that you muſt allow them to reſt and take their breath every ſeven or eight ſteps they make; the whole journey becomes thus, although very laborious, but intervals of alternate reſt, and a ſlowly progreſſive motion.

The rain was ſo heavy, and every thing, during the firſt few days, ſo very wet, that it was not poſſible to make a fire; and we had to live on bad cheeſe, and biſcuit made partly of maize. We made each night, when we were not ſo fortunate as to meet with a cabin already conſtructed by ſome other traveller, the beſt bed we could of the branches of trees, and their leaves. In proportion as we advanced, the heat of the torrid zone abated, and we ſoon became ſenſible of cold. When I ſay I was ſeven days on my journey, I do not reckon the ſtay I made in the town called Guaranda, in the heart of the Cordelier, and which preſents a ſituation of reſt which no perſon ſhould fail to avail themſelves of. The whole of my way was through woods, which terminated, as I have ſince ſatisfied myſelf, at the height of fourteen or fifteen hundred toiſes; and when I came to any ſtation more open than uſual, and caſt my looks behind, I could ſee nothing but the immenſe foreſts through which I had paſſed, ſpreading themſelves even to the ſea. I at length got to the height, and found myſelf at the foot of a mountain called Chimborazo, always loaded with ſnow, and all the ſoil covered with froſt and ice. The Cordelier being nothing elſe than a long range of mountains, of which an infinity of its pointed ſummits are loſt in the clouds, it is not poſſible to croſs them but

by the necks or defiles; but that by which I made my way, partook of its great elevation above the level of the ſea. I was at the foot of the Chimborazo, and, in the mean time, I found myſelf already in the region where rain never falls; to the greateſt diſtance around me I beheld nothing but ſnow or hoar-froſt.

I followed exactly the ſame route taken by the ancient troop of Spaniards, who are handed down to us in hiſtory. This troop, commanded by Don Pedro Alvarado at the beginning of the conqueſt of Peru, and preciſely two centuries before me, made this voyage to the aid of Francis Pizarro: he took, as I have done, his way from Puerto Viejo to Guayaquil, by way of Jipijapa; from Guayaquil he aſcended to the foot of Chimberago, and went along the ſouth ſide of this mountain to Riobamba, called at that period Rivecpampa: but in going over a hill, which could be no other than that known now under the name of Arenal, ſeventy of his followers, no otherwiſe acquainted with Peru than from report of its riches, and having taken no precaution, periſhed with cold and laſſitude, among whom were two or three of the Spaniſh women who firſt ventured into the country. Having attained the height, I muſt neceſſarily deſcend. How was I ſurpriſed at the novelty of the view! I imagined myſelf, after having been ſucceſſively expoſed to the ardour of the torrid zone and the horrors of cold, tranſported all at once, as it were, into the temperate climate of France, and into a country, as embelliſhed here, in the moſt engaging ſeaſon.

At a diſtance I beheld well-enough cultivated fields, a great number of towns and villages, inhabited by Spaniards or Indians, other ſmaller and pretty towns, and all the open and unwooded tracts, peopled as are ſome of our provinces. The houſes, no longer conſtructed with bamboos, as are thoſe lower down, but built of ſolid materials, ſome of ſtone, but for the moſt part of large bricks dried under ſhade. Every village is ornamented with a ſquare, one of the ſides of which is partly taken up by the church; in no region of the world have they failed to ſet this place, which is a parallelogram, to the eaſt, from which ſtreets divide in ſtraight lines, open to the diſtant country; even the fields are frequently interſected thus at right angles, which give to them the form of a garden. Such is that part of the province of Quito, ſituated by the Cordelier to the north and ſouth of this capital; worthy, indeed, by its ſize, its edifices, and number of inhabitants, of its title. This city is about eight or nine hundred toiſes in length, by five or ſix in breadth; is the ſeat of a biſhop, and the reſidence of the preſident of the Audience, who is alſo governor of the province. It has a great number of religious ſocieties in its boſom, and two colleges, which are a ſort of univerſities, one under the direction of the Jeſuits, and the other under the Dominicans. The inhabitants amount to between thirty and forty thouſand, one-third of whom are Spaniards, or of Spaniſh origin. Proviſions are exceedingly dear. The only foreign merchandize there is, and that carried on with difficulty, is at an exceſſive price, as our cottons, woollen cloths, and ſilk ſtuffs. I have frequently given ſix reals, or more than a crown, a pound for iron, to make ſome inſtruments of; a drinking-glaſs coſts eighteen or twenty francs: but every neceſſary of life is to be found there, and the country furniſhes them in abundance.

It muſt be confeſſed, when one is in the deſerts, at a diſtance from the Cordelier, and look upon this briſtled chain of ſummits, it is impoſſible to imagine to oneſelf any thing concealed among them. One would be led to believe that, in climbing theſe mountains of ſuch terrific aſpect, when we have reached the height, we ſhould be compelled by the inclemency of the weather to deſcend on the other ſide, where we ſhould meet with foreſts like thoſe we had left behind: it could never enter the mind that behind theſe mountains extend a ſecond range equally high, and that they ſerve, neither

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one nor the other, but as a ſhelter to this happy country; where nature has traced out in her gifts, to ſay rather, in her profuſions, the image of a terreſtrial paradiſe.

This country is comprehended between the double chain of the Cordelier, which, like two walls, ſeparate it on the ſides of eaſt and weſt from the reſt of America. The firſt of the two chains is, as we have already mentioned, at from 40 to 45 leagues from the ſea; the two are parallel to each other at about the diſtance of ſeven or eight leagues; I mean their ridges; ſometimes they fly off, at others approximate, but always preſerve the ſame direction, which varies little from that of the meridian: from their extreme vicinage, the land or plain which ſeparates them muſt be very elevated. This plain is five or ſix leagues in breadth; the two chains of the mountains, which, to thoſe on the outſide of them, appear but a ſingle maſs, are very viſibly diſtinct to the inhabitants living between them. Quito, and the largeſt portion of the province, is thus ſituated in an extended valley, which is ever reputed a mountain, from being placed between higher mountains, the moſt of which are covered with ſnow, or, if I may be permitted an expreſſion conformable to that in uſage in the country, ſnowed.

The Cordelier is not double in its whole length, though I know it to be ſo, having viſited the country, from the ſouth of Cuenca to the north of Popayan, to an extent of more than one hundred and ſeventy leagues; and I know it to be double yet further towards the north, although the country, by its ſinking, loſes by degrees the good qualities it poſſeſſes in the environs of Quito.

The ſufficient width of the valley and its expoſition to the ſun would, it might be ſuppoſed, render the heat of it inſupportable: but, on the other hand, the great elevation of the land, and the vicinage of the ſnow, it muſt be eaſily conceived, muſt temperate the heat; the two contraries, if one may ſo expreſs oneſelf, are intermarried, and the iſſue of the connection can be no leſs a laſting autumn than a perpetual ſpring. They are ſtrangers to many of the hurtful animals, the tiger and ſerpent, ſo frequent in the foreſts of the low countries; the heat in the higher country is not ſufficient for them. The thermometer of Reaumur kept its ſituation at fourteen or fifteen degrees; the fields are always green, where grow the fruits of the torrid zone with thoſe of Europe, as apples, pears, and peaches: the trees there are almoſt always in ſap; every ſpecies of grain, and particularly wheat, is there very productive. Wine might be made there, had not Lima obtained an excluſive privilege to make it, one of the objects of her commerce, while Quito ſubſiſted on her commodities, and by her manufactories of woollen cloths, calicoes, and cottons.

Years of ſcarcity and dearth do not ordinarily furniſh proofs of the fertility or goodneſs of the country in which it prevails, nevertheleſs Peru is a ſingular exception to this rule. Another example of a more rainy year than 1741, perhaps, a century will not produce. The crops all failed, and the harveſt did not yield ſcarcely a ſeventh or an eighth part of the average of other years; the price of every thing increaſed, as may be imagined, enough; for the inhabitants of the country of Peru are unacquainted with magazines of reſerve to have recourſe to on ſuch occaſions. A very moderate degree of labour is ſufficient to render the ſoil, which is there extremely teeming, liberally productive; yet is bread very dear, double and treble of what it is with us, becauſe the views of the people of the province of Quito extend not beyond the preſent wants, and leave much of their lands uncultivated. The ſcarcity cauſed a riſe nine times over in the price of wheat, maize, and all other grain, and even in potatoes, which, with the maize, is the chief food of the Indians. It ſeems the public calamity muſt have been extreme, and it was, too, ſpread widely round: in the mean time ſcarcely any body ſuffered; the poorer ſort were ſomewhat incommoded,

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but they lived; they had recourſe to fruits and various ſorts of vegetables, which never failed them. Cheeſe they were never without; and, as the cattle could always find rich paſturage in the extenſive open plains of the mountains, meat was always cheap, and at a price, though I have noticed the reaſon of the advance, which will ſurprize, when compared with that of bread; beef was more than two or three ſous a pound of our money.

Every thing neceſſary for clothing is there as eaſily obtained. Flax grows very well: I have ſeen ſome which had been cultivated in the country, which was very fine. The wools are not of quite ſo good a quality as ours, but by uſing the better ſort of it they might make better cloths than they do. The Vicuna is not ſeen at Quito, but they have an animal of much the ſame ſpecies, which the Indians call Llamas; it may better be compared to a ſmall camel, and this they uſe to carry burthens of from fifty to ſixty pounds weight: the Vicuna is to be found in Chili, and will live, no doubt, in many places of the Cordelier of Peru. Ingredients are found proper for dyeing. Indigo is common in the low countries; in the higher, there is a ſhrub grows that gives a very fair yellow, and in many places they attend to the breeding of the inſect, known under the name of the Cocheneal, which gives the crimſon colours. They carry on a commerce with Ambato, a place twenty leagues ſouth of Quito, where the temperature is nearly the ſame; perhaps the thermometer may ſtand at one or two degrees higher. There is now no want of ſpices, or, what is the ſame thing, they have it in their power to ſubſtitute, for thoſe with which we are acquainted, others produced in the country, which they do effectively, and more ſucceſsfully. Laſtly, it is ſufficient to chuſe a ſituation either a little higher or lower (for we have ſhewn this long valley does not form a perfectly even plain), to enjoy the air and the advantages of the moſt different climates.

From the circumſtance of the ſphere being here very much equal, the days are always nearly of the ſame length with the nights; it is a perpetual equinox, and the degree of temperature is nearly the ſame throughout the year in the ſame place: the rains only mark the ſeaſons, and they fall nearly as they do in the low countries in the forelts, from the month of November till May: theſe rains, together with the earthquakes, and frequent volcanic eruptions, which are in great numbers, conſtitute the bad qualities, of which but few good ones are behind to balance, of theſe countries. It is eaſy enough for a traveller who penetrates into the interior of the valley, to ſatisfy himſelf he does not deſcend within as he aſcends without, and that he is at a conſiderable height above the level of the ſea, but to what degree is difficult, nay impoſſible, for him to eſtimate. There is no time for reflection in ſuch a journey; man, in purſuing it, is then but a machine. All the collected waters diſcharging themſelves from the two Cordeliers, fall in all directions of the horizon, on the outſide of them, either to the North or South Sea, which mark their great height; theſe waters form the higheſt cataracts in the world; but they mark out nothing preciſely to the ſimple traveller. Thus it is not aſtoniſhing that the inhabitants of Quito ſhould have had the information from us, that of all the people of the known world, they are the higheſt ſituated; that their elevation above the ſea was from fourteen to fifteen hundred toiſes, and that they breathed an air more rarified by one third than other men *. Nor need any part of the known world be excepted in this obſervation, as from every circumſtance we have reaſon to believe, that the mountains of the temperate and frozen zones are uninhabitable, and even inacceſſible to half their height.

* The mercury in the barometer at Quito kept its ſtation at twenty inches one line.

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We found ourſelves, at firſt, conſiderably incommoded by the rarefaction of the air, particularly thoſe among us who had delicate lungs, felt the alteration moſt, and were ſubject to little hemorrhages; this no doubt ariſes from the lightneſs of the atmoſphere, no longer aiding by its compreſſion on the veſſels, to the retention of the blood, which on its ſide maintains always the power of action. I did not myſelf, when we had occaſion to aſcend much, obſerve this inconvenience to increaſe; perhaps the reaſon might be I was already inured to the country, or it might be owing to the cold preventing the dilatation of the air to the degree it might otherwiſe have been. Many of us while aſcending, fainted, and were ſubject to vomiting; but theſe accidents were more the effect of wearineſs than a difficulty in breathing; this is inconteſtibly proved by their never being ſubject to this inconvenience while on horſe-back, and when they had attained the ſummit, where the air, notwithſtanding, was more ſubtle. I do not deny that this great rarefaction haſtens laſſitude, and contributes not a little to exhauſtion, for reſpiration becomes extremely oppreſſive at every exertion however trifling, and at the leaſt motion we make we are out of breath: but ceaſe theſe exertions and this motion, and the conſequences are no more. I advance nothing that I have not been many times witneſs to, and ſhould have witneſſed many times more, had not experience quickly taught many among us that it was not permitted us to expoſe ourſelves to ſo great a fatigue.

Quito is at the foot of one of theſe mountains, named Pichincha, which belongs to the weſtern chain of the Cordelier, and is that on the ſide of the South Sea; this is aſcended, as are the moſt part of the others, very high on horſe-back. Many of theſe mountains reſemble each other, inſomuch that their baſes are formed by ſeveral hills covered with an argillaceous or common ſoil, from the middle of which a pyramid or maſs of ſtones riſes from one hundred and fifty to two hundred toiſes in height. There is ſome appearance that in remote times the whole was covered with a ſoil, and that it has ſlided by degrees from, or ſome ſinking occaſioned by an earthquake, have laid bare, the rocks.

This part of Pichincha is very difficult to climb, we remained upon its ſummit for three weeks: the cold was very intenſe, ſo much ſo, that ſome ſcorbutic affections began to make their appearance on ſome of us, and the Indians, and other ſervants we had engaged in the country, experienced violent pains: they vomited blood, and ſome of them were obliged to deſcend; but this indiſpoſition was not continual while we were ſtationed upon the point of the rock, it aroſe from the intenſeneſs of the cold, to which they had never been accuſtomed; the dilated ſtate of the air did not appear to be the cauſe, at leaſt the immediate or moſt approximate cauſe: I examined with the more circumſpection into this, as I was aware that the moſt part of travellers had been led into an error with regard to the circumſtance, by not enough unravelling the different effects. Frequently, when we have been at ſupper in the evening, we have had an earthen pan of fire, with many candles alight in the midſt of us, and the door of our cabin with double hides, and yet all would not prevent the water freezing in our glaſſes. We had every difficulty imaginable to manage a pendulum; we were continually in the clouds, which abſolutely veiled from our ſight every thing but the point of the rock upon which we were ſtationed. Sometimes the ſky would change three or four times in the ſpace of half an hour; a tempeſt was followed by fine weather, and in an inſtant after, thunder, loud in degree to its proximity, ſtruck upon our ears; our rock producing the ſame effect with regard to it, as the ſands of the ſea when the waves daſh againſt them. We did not uſe our thermometer towards the end of our ſtay upon the rock, and when we thought the cold had become too intenſe;

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but we had already obſerved the inſtrument to have been at ſome degrees below the freezing point, and that it varied more than at Quito. It had often varied between morning and the afternoon ſeventeen degrees, although always in the ſhade.

The mercury which ſtood expoſed on the margin of the ſea, was at twenty-eight inches one line, and on the rock one line below ſixteen inches; the elaſticity of the air was proved to be, as in the lower countries, and in Europe, exactly in proportion to their condenſations. Theſe obſervations, together with many others made with much care, not only confirm this exact relation, but proves to us that the intenſity, even of the elaſtic force, or virtue of the air, is evidently equal in all the places of conſiderable elevation of the torrid zone. The actual condenſations in every place are there proportional to the weight of the upper columns of air, which cauſe the compreſſion: and theſe condenſations or denſities alter in a geometrical progreſſion, while the heights of places are in arithmetrical progreſſion *. Below, this is not the ſame, becauſe the intenſity of the elaſtic force of the air is there really leſs than at one or two hundred toiſes higher, and it muſt neceſſarily be conſiderably leſs, becauſe it is ſo notwithſtanding the effect of the heat which contributes to render it greater. This is not the place to inſiſt farther on this ſubject, and to explain the different means I availed myſelf of to aſcertain, in every place, the preciſe degree of this force. To cloſe my account of the obſervations made upon Pichincha, the pendulum in ſeconds, when it was ſtopped immediately for the purpoſe of experiments, was ſhorter there, than on the ſhore of the ſea, by thirty-ſix hundredths of a line †.

All our perſeverance was requiſite to ſtruggle againſt the rigour of our ſituation for more than twenty days; and we were at length obliged to acknowledge the neceſſity of renouncing ſo elevated a ſtation. The higher we aſcended, the more ground we would explore, our diſcoveries dwindled almoſt to nothing. A high mountain not only arreſts every cloud that meets it, but thoſe alſo at a certain diſtance paſſing the ſide of it, they are thrown behind by the wind, and are there becalmed. Beſides, if it happens the point upon which we are ſtationed ſhould be free of them, frequently the others we want to ſee, are not; and the difficulty becomes incomparably greater when the ſight of four or five mountains is abſolutely neceſſary almoſt at the ſame

* This ſupplies a very ſimple rule which I here explain in favour of ſome of my readers. They have only to look into the ordinary table of logarithms for the heights of the barometer, expreſſed in lines; and if they take a thirtieth part from the difference of theſe logarithms, in taking with the characteriſtic the four firſt figures only which follow it, they will have the relative heights of the places in toiſes. The mercury ſtood in the barometer at Carabouron, which is the loweſt of our ſtations, at twenty-one inches two and three-quarter lines, or at two hundred and fifty-four and three-quarter lines: whereas on the rocky ſummit of Pichincha it ſtood at fifteen inches eleven lines, or one hundred and ninety-one lines. If we take the difference of the logarithms of theſe two numbers, it will produce one thouſand two hundred and fifty, and if a thirtieth part is ſubtracted, it will give one thouſand two hundred and nine toiſes for the height of Pinchincha above Carabouron, which correſponds with the geometrical ſolution. The application of this rule is the more exact as the heights of the mercury in the barometer vary very little in any place of the torrid zone. The variation below, near the ſea, is little more than two and a half or three lines, and at Quito about one line. M. Godin has been the firſt to notice theſe variations at certain hours of every day at Quito, which I attribute to the daily dilatation cauſed by the heat of the ſun upon the atmoſphere. On the banks of the ſea, this dilatation cauſes no alteration in the weight of the air, for be its column higher or lower its weight ſhould be equally the ſame; but the dilatation cauſed during the day takes ſomewhat away from a part of the lower column, which adds more to the higher one; and this varies the diſtribution of the weight with relation to all places ſituate in the Cordelier, and even upon other mountains.

† I have noticed it on the mountains at thirty-ſix inches ſix ſeventy-one-hundredth lines; at Quito thirty-ſix inches ſix eighty-three-hundredth lines; and on the ſea ſhore thirty-ſix inches ſeven ſeven-hundredth lines.

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inſtant. We therefore became ſenſible it would in every reſpect be more to our advantage not to make the triangles of our meridian ſo high, and that we ought ordinarily to be ſatisfied with placing our ſignals upon the hills at the baſe of the rocky pyramids. But notwithſtanding this very neceſſary precaution, nothing incommoded us in our labour ſo much, as the ſudden alterations of heat and cold which we experienced from one moment to another, every time, however inconſiderable, we aſcended or deſcended.

M. Condamine and myſelf had already once more aſcended the mountain, but with no other deſign than to examine the ſtation, when we were obliged inſtantly to deſcend; we were ſurpriſed by a ſtorm, the wind had no particular direction, but blew from every quarter at the ſame moment upon us. The thunder drove the hail-ſtones horizontally againſt us, and was ſcarcely louder than the flaſh from a gun, which impreſſed the idea upon us, that upon the moſt elevated mountains the report of it would not be at all heard. We had every opportunity during the three weeks we were ſtationed here, to reform this firſt opinion; and we have been a great number of times ſince upon other mountains, where we have heard the moſt terrible rolling of thunder, ſometimes over our heads; at others, beneath us. It is not to be diſputed that the claps of thunder are ſometimes very weak; ſuch as they are generally when the lightening is ſeen and no noiſe follows. We do not hear them below; theſe are happily ſtrokes without effect, which may ariſe from many cauſes, and often from the great diſtance at which we may be from them. At the time I have juſt mentioned, when upon the height, we were in the very focus of the ſtorm, but apparently the inflammable matter had collected in too ſmall a quantity.

The higheſt ſtations, in our work of the meridian, have always occaſioned us the moſt trouble. The moſt elevated ſtation we availed ourſelves of for our triangles, is two thouſand three hundred and thirty-four toiſes above the ſea, and is named Sinazahuan; it forms one of the ſummits of the mountain of Aſouay, which divides the juriſdiction of Riobamba and Cuenca. It will ſurpriſe you to be told the Incas have carried a road over this height, which they are in the habit of daily frequenting; but they are careful to chuſe the weather; for if they have the misfortune to be caught in a ſtorm, mingled with hoar or ſnow, they run a riſk of never returning more. We fortunately carried a change of tents along with us; ten or twelve of the days we were ſtationed there, we had to ſubſtitute the one for the other three times ſucceſſively. So greatly were they alarmed on our account at Atun-Cagnor, a town three or four leagues diſtant, that public prayers were offered up for us.

Every variety of weather we have had whilſt amid theſe mountains, has ſufficiently ſatisfied us how much certain philoſophers have been miſtaken, who have conceived the clouds of a nature different from fogs. The clouds have frequently not aſcended to us, they have been five or ſix hundred toiſes below us, and have veiled the valley from us, while the inhabitants of the plain could not diſcern the ſky: at other times theſe clouds having leſs weight, have riſen higher, and become to us a ſimple fog in which we found ourſelves involved. When I have noticed them very much above me, they have always appeared very white: I do not know what better I can compare them to with regard to the colour and form they then preſented, than to heaps of cotton touching each other, whoſe union preſents a wavy ſurface. With reſpect to the colour, it is preciſely the ſame as with water and glaſs; glaſs we know loſes its tranſparency when pulveriſed, and when looked on at its brighteſt ſide, appears to have all the whiteneſs of ſnow. So it is with water when reduced to very ſmall particles, or almoſt imperceptible drops in the clouds or fogs. If theſe ſmall drops are nothing elſe than ſmall hollow

hollow ſpheres, the interior air more or leſs dilating them muſt neceſſarily oblige the water which forms the bubble to vary its thickneſs, and the ſmall ſphere changing its bulk, the cloud muſt aſcend to a greater or leſs height, till it meets with an equilibrium in the bed of the atmoſphere in which it floats. To-day the clouds are of a certain ſpecific weight, and maintain their ſituations at a preciſe height; they are obſerved throughout the whole mountain to attain but to a certain point; to-morrow the ſmall bubbles will be bigger or leſs, the clouds become more or leſs light, and they will be obſerved to ſtation themſelves in a higher or lower region. It is at ſun-riſe they are noticed to be more ſuſceptible of motion, when they aſcend in an uniform manner, and ſometimes with great velocity. But to return to their tranſparency, as the ſmall bubbles which compoſe them, preſent too large a number of ſmall ſurfaces to the light, they appear opake when viewed from below; whereas were the ſpectator ſtationed above them, as we frequently were upon Pichincha and other mountains, all the reflected and intermingled rays, after having undergone various refractions, form the white, conformably to what we are acquainted with, regarding the property of light.

There is an extraordinary phenomenon viſible almoſt every day upon theſe mountains, and which muſt neceſſarily be as old as the world, yet there is much probability we have been the firſt to notice it. The firſt time we remarked it, we were together upon a mountain of a medial height called Pambamarca. A cloud in which we were enveloped, removing, opened to our view the ſcene of a very brilliant riſing ſun, the cloud paſſed from the other ſide; it was not thirty paces diſtant, being yet too ſhort a one to give it that whiteneſs of which I have ſpoken, when each of us ſaw his own ſhadow projected above, and only ſaw his own, by reaſon the cloud did not preſent an even ſurface. Its proximity allowed us to diſtinguiſh every part of the ſhadow; we ſaw the arms, legs, and head; but what aſtoniſhed us the moſt was, that the head was decorated with a glory or circlet compoſed of three or four concentric coronets, of a very lively colour, each with the ſame variety as the firſt rain-bow, the red being the outward colour. The diſtances between theſe circles were equal, the laſt circle the fainteſt; and after all at a great diſtance we noticed a large white circle, which ſurrounded the whole. This was a ſort of apotheoſis to each ſpectator; and I muſt not neglect to apprize you, each every day calmly enjoyed the exquiſite pleaſure of viewing himſelf decorated with all theſe glories, and ſaw no trace of thoſe of his neighbour's. It is true it is preciſely the ſame thing with regard to the rain-bow, although it has not always been attended to. Each ſpectator views a diſtinct rain-bow, ſince the arch has a different centre for every perſon; but as the coronets which are ſeen upon the mountains of Peru are very ſmall, and ſeem to belong to the ſhadow of the ſpectator, each has a right to appropriate what he diſcovers to himſelf. The firſt immediately encircles the head of the ſhadow, the others follow, and the ſpectator, only witneſſing what concerns himſelf, merely conjectures that his neighbours find themſelves in a ſimilar ſituation.

I frequently noticed the diameters of theſe circles, nor did I fail to do ſo the firſt time I beheld them; for I haſtily made a ſort of radius with the firſt rules at hand, becauſe I was apprehenſive this admirable ſight might preſent itſelf but ſeldom. I have remarked the diameters from one moment to another to vary in dimenſion, but whether leſſer or greater, the interval or ſpace between them always maintained its equality. Beſide the phenomenon is only pictured upon the clouds, and on ſuch only whoſe particles are congealed, and not, like the rain-bow, on drops of rain. When a cloud that ſhades the ſun withdraws, and the ſun becomes more ardent, quickly the

little bubbles of the oppoſite cloud neceſſarily dilate; their ſurface enlarging, the thickneſs of the water contained in them diminiſhes: and reduced to a thinner ſubſtance, it is only a greater obliquity, or bubbles more remote from the centre of the ſhadow, which can preſent to us, as other experiments of this nature have confirmed, the ſame colours. The diameter of the firſt circle was commonly nearly five degrees two-thirds, the next nearly eleven degrees, the third ſeventeen degrees, and thus on; the white circle was nearly ſixty-ſeven degrees in diameter. The time proper to view this phenomenon, which requires that the ſhadow be projected from a cloud, is a ſufficient excuſe for the Peruvians never having beheld it, and why they ſhould not be blamed for it. It is an hour not uſual for any but a philoſopher to be found upon the ſummit of a high mountain: it might probably be noticed ſometimes, on our moſt elevated ſteeples. All of us have ſeen at a ſhort diſtance from us, fogs confined to a very circumſcribed ſpace; one thing only was wanting, which was the ſun in the oppoſite horizon; but where this latter circumſtance has not exactly correſponded, a portion of the white circle is frequently to be diſtinguiſhed, as I have at different times remarked ſince I have paid attention thereto.

The height of the rocky ſummit of Pichincha, is nearly the ſame with that of the loweſt conſtant termination of the ſnow on all the mountains of the torrid zone; and I have found it at two thouſand four hundred and thirty-four toiſes above the level of the South Sea. The ſnow falls much lower; it even, though but rarely, ſometimes falls at Quito, which is more than nine hundred toiſes ſhort of the height of Pichincha, but it may be thawed the ſame day: whereas in all the parts of the Cordelier I have gone over, I have obſerved it higher to lie undiſſolved. Some mountains do not reach this point of termination; others, as Pichincha, border upon it; others, and theſe in great numbers, lift themſelves ſtill higher, and have their ſummits continually covered; and conſequently, from the ſnow being converted into ice, are inacceſſible. When the mountains are not enveloped in clouds, their ſurface muſt be a little thawed during the day; but the ſun ceaſing to act, the ſurface becomes glazed; the water paſſes into the interſtices of the lower beds, and there freezing, renders the ſnow extremely compact, and forms a ſolid whole. The ſurface hardens at the ſame time, and becomes as ſmoothly poliſhed as a mirror, ſo that it is as it were impoſſible to aſcend higher. This limit depends upon too great a variety of circumſtances not to be liable to great irregularities. Many mountains in Peru have a diſpoſition to emit flame, for almoſt all of them have been volcanic, or actually are ſo notwithſtanding their ſnows, which much induce a forgetfulneſs of the circumſtance: it is beſides certain, the larger the dimenſion of the maſs is which conſtitutes their baſe, the more ſuſceptible they muſt be of heat, and the limit of congelation farther removed; as theſe maſſes muſt be conſidered a ſecondary ſoil, every day imbibing the heat of the ſun; on the other hand the part covered with ſnow, when very conſiderable, produces a contrary effect; it cauſes a greater cold around, capable of congelation, or producing ice a little lower down. In the mean time the difference is not great, inaſmuch as I have remarked the lower boundary of the ſnow, to form a level line through all the mountains of Peru, in a manner to enable us at a glance to judge of their height.

The volcanoes, as I have noticed, create the ſtrongeſt exception to this rule; but the exception is ſometimes ſuch as it may be difficult to foreſee. This I have remarked with regard to Cotopaxi, a ſtation of our meridian, ſituated on the eaſtern chain. The ſpot on which we were ſtationed was between one hundred and fifty and one hundred and eighty toiſes below the ſnow; but this mountain, from a recent irruption in 1742, had cauſed the ſnow above to thaw. We ſaw it from below ſometimes increaſe, and

ſometimes diminiſh, in thickneſs; but, at the ſame time, the boundary of the beginning of congelation likewiſe lowered; and fell below the ſtation on which we were encamped to work at our triangles. I gave myſelf the trouble, at the beginning of 1743, again to viſit the mountain, to ſatisfy myſelf of this, and various other circumſtances, ſo that I could not be deceived. This ſingularity ſeems to have ſome connection with thoſe acknowledged operations, in which congelation is haſtened by the aſſiſtance of fire. In the meantime, the examination led me to a diſcovery, that the ſingularity depended upon a very different cauſe. I diſcovered, that what at a diſtance I had taken for ſnow was not, but water, which, falling from above, and guſhing from out the mountain on every ſide, froze as it run. It is certain, that the leaſt degree of heat is ſufficient to thaw particles ſo delicate as ſnow, when it falls upon a ſurface interiorly heated. But when a body of water of a certain thickneſs runs over the ſame ground, the heat below may be ſo weak, as not to communicate with the upper ſurface; and if this ſurface is found expoſed to an exceſs of cold, nothing can prevent it being converted into ice. The ſnow on the higher parts of Cotopaxi thawing, from its vicinity to the fire, continually produces new water, and this water freezing below after being divided into an infinity of ſtreams, forms, as it were, when received at a certain diſtance, ringlets of ice on the mountains, but, looked at from a certain diſtance, it appears a perfect covering. The ſame effect may have place upon all the other mountains; the ſnow only maintaining itſelf to a certain limit in deſcending; whereas a body of water will, in proportion as it decreaſes in bulk, freeze on its ſurface, lower on the mountain. Such is the elucidation of this phenomenon, derived to me from my viſiting the places. If regard is had to the exception it furniſhes, and to others leſs conſiderable, we repeat it, the lower limits of the ſnow conſtitutes a ſufficiently exact level line through all the country in the environs of the equator.

But if we examine the circumſtance in a more general manner, if we direct our regard to the globe, this line will not be found exactly parallel with the earth: it is evident it muſt, in its direction, gradually fall, as it retires from the torrid zone, or advances towards the poles. In the middle of the torrid zone this line is at two thouſand four hundred and thirty-four toiſes above the level of the ſea; at the entrance into the temperate zone, it will be found but two thouſand one hundred, paſſing by the ſummit of Theyde, or the Peak of Teneriff, which is nearly of this height *. In France and Chile, the line will paſs at fifteen or ſixteen hundred toiſes, and, continuing to deſcend

* The Pere Feuillée, to whom we are indebted for a great number of obſervations, aſſigns, in a manuſcript relation preſented to the Academy on his return from a voyage to the Canaries in 1724, two thouſand two hundred and thirteen toiſes to the height of the Peak of Teneriff. But we are induced to believe, for reaſons we ſhall give, that we muſt take from the calculation of this height one hundred and forty or one hundred and fifty toiſes at leaſt. The obſerver worked upon a baſe, whoſe length, not being more than two hundred and ten toiſes, was much too ſhort, conſidering that he was diſtant from the Peak not leſs than ten thouſand toiſes. This baſe, too, from the badneſs of its ſituation, was not equivalent to another much leſs: for, conformably to a method ſcarcely ever good but in theory, it was directed up the mountain, inſtead of having a direction nearly perpendicular: inſomuch, that the baſe was really reduced to forty toiſes, which had been placed in a ſituation nearly perpendicular to two viſual rays directed to the ſummit of the mountain. Finally, P. Feuillée neglected the inclination of his baſe, becauſe they told him the ſea had formerly covered the ground. Now, were this true, the ground muſt have acquired elevation ſince, and ſtill more towards the foot of the mountain where his ſecond ſtation was fixed: now, as the inclining of the ground was no more than three toiſes in two hundred and ten, which is by no means conſiderable, the two viſual rays, by reaſon of the elevation of the ſecond ſtation, have met at little diſtance, and at little elevation in the air; and regard being had to the ſhortneſs of the reduced baſe, which was not more than forty toiſes, we muſt diminiſh the height calculated by P. Feuillée a thirteenth or fourteenth part. I conceive the reader will not conſider this note as foreign to a work of the nature of this, which has ſo often a relation to mountains.

in proportion as it removes from the equator, it will touch the earth beyond the two polar circles, though our calculations have regard only to the ſummer.

This line may be called that of the Conſtant Lower Boundary of the Snow, for there muſt neceſſarily be another, i. e. the Upper Boundary; but this, to all appearances, the higheſt mountain of the world does not reach. If there were mountains high enough to lift their ſummits above all the clouds, the more elevated parts of theſe high ſummits would be free of ſnow, and we ſhould there enjoy, could we attain the ſtation, a perfect and perpetual ſerenity, as is improperly conceived of Olympus, Mount Ararat, and of Theyde, or the Peak of Teneriff, although the latter does not completely reach to the lower boundary of congelation. To limit myſelf ſimply to declare here, what I myſelf proved, ſome of the mountains which have ſerved as ſtations for our triangles, Cotopaxi for inſtance, have a portion covered at from ſix to ſeven hundred toiſes of perpendicular height. It will be unneceſſary to mention others along our meridian, as well as on both ſides the river Magdalene, approaching the ſea from the north, to Saint Martha. Chimborazo, which is the higheſt of all I have noticed, or even ſeen, is three thouſand two hundred and ſeventeen toiſes above the ſea, and the part of it on which the ſnow lies more than eight hundred. But if the clouds ſometimes paſs lower, which opens the ſummit to our view, they alſo paſs ſometimes conſiderably above the ſummit, even to three or four hundred toiſes, which has enabled me at a diſtance to judge of them, comparing their height with the dimenſions of the mountains I had already meaſured. In a word, the ſpace, in the perpendicular or vertical ſenſe, between the two boundaries, the upper and lower of the ſnow, is at leaſt, in the torrid zone, eleven or twelve hundred toiſes; we muſt even conſiderably add to this height, if it is permitted us to confound the clouds formed by the ſmoke of the volcanoes with others, for I have obſerved it aſcend ſeven or eight hundred toiſes ſtill higher. Thus, if we ſhould ſtop at this laſt boundary, and there had been mountains high enough, a girdle or zone of ice might have been noticed, the beginning of which would have been at two thouſand four hundred and forty toiſes above the level of the ſea, and ending at nearly four thouſand three hundred or four thouſand four hundred toiſes; not that we are to conclude from hence the ceſſation of the cold at this point, ſince it is certain, on the contrary, the farther we are removed from the earth, the greater will be the degree of cold, but by reaſon that the clouds or vapours cannot aſcend higher.

It is not difficult, by a little attention, to be convinced, that the cold muſt naturally increaſe in the proportion we are lifted into the atmoſphere. It is not only the firſt obſtacle to our aſcending, but alſo to our breathing, in a very great elevation, had we the power to reach it; a circumſtance which has not enough impreſſed the minds of thoſe, whoſe ideas have led them to conceive and talk of an agreeable reſidence above the region of the clouds. It had been reaſonable, in order to deſcribe the cold felt upon the ſummit of mountains, to inſiſt upon the ſhort duration of the power or action of the ſun, which falls but for a few hours upon each of their ſides, and frequently not at all. An horizontal plain, when the ſky is clear, is ſubject, in the middle of the day, to the perpendicular action of his rays, the force of which nothing can diminiſh: whereas an inclined ſurface, the ſides of an high point of rocks, almoſt perpendicular, can only be played upon by them. But let us conſider for a moment an inſulated point, in the midſt of an elevated atmoſphere, and draw an abſtraction from all mountains, and even clouds which float in the air.

The more diaphanous the centre may be, the leſs of heat it will imbibe from the immediate action of the ſun. The facility with which a very tranſparent body gives paſ-

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ſage to the rays, is evidence that its ſmall particles is ſcarcely affected by them. Indeed, what impreſſion can it receive, oppoſing no obſtacle to their paſſage? According to the obſervation I have formerly made, the light, when formed of parallel rays, loſes not here below one hundred thouſandth part of its force traverſing a foot of free air. One may judge from this, how few of the rays are deadened, or can act upon this fluid, in paſſing through a bed whoſe thickneſs (I will not confine myſelf to ſay) is not an inch or a line, but I will even ſay, is not the ſimple diameter of a molecule. In the meantime, ſubtilty and tranſparency are the greater as more elevated: the natural eye, in looking at objects at a diſtance in the Cordelier, will ſometimes perceive this. Finally, the groſſer air heats below, by its contact with, or vicinage, to denſer bodies that it ſurrounds, and upon which it creeps; and the heat may communicate itſelf with it, nearer and nearer, to a certain diſtance. The lower part of the atmoſphere, by this means, daily contracts a very conſiderable heat; and it will be the greater, to its degree of denſity. But this, we know, is not the caſe at a league and a half, or two leagues above the ſurface of the earth, although the light, when it paſſes there, ſhould be more vivid. The air and the wind muſt neceſſarily then be very cold; and the more elevated the ſituation in the atmoſphere, the more penetrating it muſt be.

Further, the heat we ſtand in need of to exiſt, is not ſimply that we receive every inſtant immediately from the ſun. The momentary degree of this heat correſponds but with a ſmall portion of that which all the bodies which preſs upon us have contracted, and by which ours is pretty nearly regulated. The action of the ſun does but merely maintain in the ſame ſtate the aggregate of total heat, by ſupplying the diminution it continually ſuffers from the night. If the degrees added are greater than thoſe loſt, the body of heat, as in ſummer, will augment, and it will increaſe more and more to a certain line; but, conformably to what we have ſeen, this addition, or this total, thus to expreſs it, of accumulated degrees, can never reach far up the ſummit of a high mountain, the moſt elevated point of which is generally but of ſmall ſize. This is the cauſe why the changes in the thermometer were ſo great upon Pichincha; while at Quito they were ſo little, and ſtill leſs on the ſea ſide. The loweſt ſtate of the thermometer, at every place, has always relation to the degree of heat imbibed by the ſoil, and this quantity being very ſmall upon the ſummit of the mountain, the portion ſupplied by the ſun during the day muſt neceſſarily be found relatively greater.

It is certain one may compare the heat the earth contracts by the conſtant action of the ſun, with the moſt part of other phyſical effects, which augment by degrees, and are comprehended in limits they cannot paſs. The degrees of augmentation which reſult from the complication of the whole, are never continually equal: theſe degrees, principally, if conſidered in the middle of their progreſs, go on diminiſhing, till they become nothing, or till the effect ceaſing to augment, reaches the utmoſt verge of accretion. Now it follows from hence, that the leſſer the accumulated heat is, or the further diſtant from its *maximum*, the more augmentation it will admit in an equal time by the action of even the ſame agent.

There is yet another ſingularity peculiar to the elevated parts of the Cordelier, and which ariſes from the ſame cauſe; and that is, when you paſs out of the ſhade into the ſun, a greater difference or alteration is felt in the temperature of the air than here during our fineſt days: there are times when every thing conſpires at Quito to render the ſun exceedingly piercing; one ſtep only is neceſſary into the ſhade, and we are almoſt ſenſible of the cold, a circumſtance that could not be, were the body of heat acquired by the earth much more conſiderable. This explains why the ſame thermo-

thermometer placed in the ſhade, and afterwards in the ſun, undergoes in no weather or place any proportional alteration. Upon Pichincha, this inſtrument commonly ſtands in the morning ſome degrees below the freezing point, which muſt be regarded as the natural temperature of the ſtation; but let this inſtrument be expoſed during the day to the ſun, it is not difficult to conceive the effect will be very great, and much more than double in whatever manner meaſured.

There remains another object, the laſt to be conſidered on this ſubject, which is, to explain why ſometimes we experience an exceſs of cold, while the thermometer indicates but a moderate degree of it. It ſeems that three or four degrees, at which this inſtrument ſtands below the freezing point, does not correſpond with all the inconvenience, it is better to ſay, with all our ſuffering: but we ought to recollect that we had left a very temperate climate, of which we had made to ourſelves, as it were, a new country, and that our removals into another had always been very ſudden. It is known from daily experience, in the countries we ſpeak of, that the heat and cold are but relatively great, and that our preſent diſpoſition depends in a great meaſure on the place we have quitted. When we aſcend or deſcend the Cordelier, and paſs the places elevated ſix or ſeven hundred toiſes above the ſea, we feel the cold or heat in the ſame place, as we may happen to have come from below or above it; if from below, we are cold; on the contrary, we are in the moſt violent perſpiration when coming down from an height on which it freezed.

We had already remarked ſomething ſimilar to this, when in our own iſlands we had to aſcend the higheſt of the mountains there. After a journey of five or ſix hours at Martinique, we attained the ſummit of Pelée at one o'clock in the afternoon, and we were ſhivering with cold, although the thermometer ſtood yet at 17½ degrees above the freezing point: it is even neceſſary our reſidence in any place ſhould be of conſiderable length, to know that we could make it our conſtant one; and this proves that our pores do not eaſily undergo an alteration, and that we do not all at once take a diſpoſition of body congenial with each climate. Here we may diſcern the cauſe of all thoſe unfortunate accidents happening at times to thoſe obliged to paſs over ſome very high ridge or defile on leaving or entering the Cordelier. By the interception of the wind by the mountain we find a ſpecies of ſhelter, and enjoy a temperate climate in our aſcent; but no ſooner have we reached the ridge, than we are all at once ſeized on by the cold, rendered incomparably ſharper by the frozen particles carried by the impetuoſity of the wind that riſes upon us. Let it be reflected how much the haſte of this change differs from the ſlowneſs with which our different ſeaſons are brought on, and the danger to which we are expoſed under ſuch circumſtances will be the better imagined. I have had alſo more than once or twice occaſion to remark, that a very little difference of elevation in very high ſtations make a very conſiderable one in their temperature: ſometimes the weather where I have been ſtationed has been but moderately unfavourable. When at thirty or forty toiſes above me on the part of the mountain covered with ſnow, on which the ſtorm ſeemed moſt to preſs, I could clearly behold it was very different. Some travellers have only been able to preſerve themſelves, when the ſtorm has been of ſhort duration, by ripping up the belly of their horſes, and ſheltering themſelves in them.

I have already mentioned a paſſage at the foot of Chimborazo, above the Guayaquil, or Caracol: but there is another paſs, infinitely more to be dreaded, and is the moſt famed in all South America; it is named the Paſs of Gouanacas, ſituated in 2° 34′ N. latitude, between Popayan and the little town of Plata. This paſs conducts

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over the eaſtern Cordelier, which maintains its height, its ſummits at certain diſtances all along being covered with ſnow, keeping its firſt direction, and terminating at about one hundred leagues northwards, towards the confluence of the rivers Cauca and Magdalene, between which it paſſes from Papayan. The Paſs of Gouanacas is never hazarded without the utmoſt dread, particularly when it is taken approaching the eaſtern ſide. It is neceſſary to encamp as high as one can, or rather to ſtop at a village, which is of the ſame name, on the exterior of it; and it is alſo neceſſary abſolutely to reſolve to wait there, if the blackneſs of the clouds ſuſpended above us gives indication of bad weather. The mules, which are uſed always in theſe journeys, on account of their ſure-footedneſs and ſtrength, are ſtill more expoſed to the dangers of this paſs; they have not only, like their maſters, to guard againſt the intenſeneſs of the cold, but they are worn out with fatigue: for more than two leagues on this way, the bones of theſe animals that have died in the journey lie ſo thick, that it is not poſſible to ſet a foot down without treading on them. I have been obliged to encounter this defile in order to embark on the river Magdalene for Carthagena, on my return to Europe. As I croſſed it from the interior of the Cordelier, I muſt neceſſarily have been in a ſituation more able to buffet with the labour of the paſſage, on the ſouth ſide of which, and at a diſtance of from four to five leagues, there is a very high mountain covered with ſnow, called Cocounoucou, an old volcano, now abſolutely extinguiſhed, and on the north another mountain, covered in the ſame manner with ſnow, which is that of Houila. Upon the ſummit of the defile is a ſmall lake, the water of which was not frozen; and, at leſs than one hundred toiſes from each other, on one ſide are found the ſources of the Cauca, and on the other the ſources of the Magdalene. I ſaw many packages that had been left by travellers on their route, but we choſe to leave them to another time, preferring this to the not getting out of this dangerous paſs between ſun-riſe and ſunſet. I eſtimate the diſtance between Popayan and La Plata at from nineteen to twenty leagues, while the journey commonly requires twenty or twenty-two days.

Although the mountains are rendered inacceſſible by the ſnow, above the lower freezing boundary, yet M. Condamine and myſelf aſcended the volcano of Pichincha in the month of June 1742, which is another ſummit more elevated than the firſt, behind which, with reſpect to Quito, it is ſituated. We found ourſelves ſurrounded with ſnow; it blocked up for ſome days all the road to us, and we were ſometimes obliged to exert ourſelves very much to prevent it cruſhing our tents down upon us, under which we were ſheltered; from its recent fall, and yielding to the preſſure of our ſteps, the declivity, too, not being precipitous, nor the diſtance long, we were able to reach the height and the edge of the volcano, whoſe different eruptions had proved fatal to Quito. The extreme ſharpneſs of the cold would not allow us to remain little more than half a quarter of an hour. It occurred to us, in our inſpection of the places, that two obſtacles had ſuſpended the great effect of the volcano upon the town; one was the interpoſition of the ſtony ſummit, upon which we made the long and diſtreſſing ſtay; the other, the half-circle of rocks upon the mouth of the volcano, to the ſide of Quito, the reſiſtance of which determined the direction of the erupted matter generally another way. It is ſingular, while we were in the midſt of our examination, another volcano in the eaſtern chain flamed beneath us, Cotopaxi, which, by melting its ſnows, recalled to our recollection its ancient ravages, and one of the moſt remarkable epochs in the hiſtory of thoſe countries.

M. Condamine and myſelf aſcended once more above the lower boundary of perpetual ſnow, upon Chouſſalong, or Le Coraçon de Barionuevo, another mountain, one of the hills

hills of which ſerved us as a baſis to our triangles. Its ſtony parts were formed like the roof of a houſe, and its northern extremity being almoſt quite bare of ſnow, we availed ourſelves, though with much labour, of the circumſtance: when we had reached the height, we found ourſelves covered with ice. The height of the mountain is 2476 toiſes, conformable to the geometrical admeaſurements I have taken of it: the mercury in the barometer was at 15 inches 9 lines, rather more than 12 inches 3 lines lower than on the ſea-ſhore. A barometer had never before been taken ſo high, and there is much probability that no perſon had ever been at the ſame place; for theſe ſorts of journeys are attempted without a motive. The love of riches, which moves ſo many people at Peru, as every where elſe, ſo far from leading them up ſuch elevated rocks, rather urges them to ſeek and ranſack the hollows beneath.

It is enough that the firſt bed of ſnow that has fallen upon a mountain has not been ſubject to be diſſolved; that the firſt and ſecond ſhould be ſtill leſs liable: thus, it ſeems, the ſnow muſt neceſſarily increaſe in thickneſs, till, loſing its ſhelving form, it ſinks, which an earthquake may alſo occaſion it to do. Maſſes large as a houſe have been ſeen to roll down, and have kept their body, although conſiderably below the line of the level we have mentioned, by reaſon they have fallen under ſhade into ſome hollow or deep ravine. The wind covers theſe maſſes with ſand, which attaches itſelf to them, hence they loſe their whiteneſs, and may be miſtaken for real rocks, of which they partake almoſt of the hardneſs. One of theſe maſſes having fallen from Cotopaxi in 1739, I aſcertained ſome months after a part of the thickneſs of the ſnow on the mountain: I meaſured it by the aid of a micrometer, examined it in various places, and found it fifty-four feet thick, although this could only be conſidered as a part of the whole thickneſs. I had occaſion, at the beginning of the year 1743, to meaſure another thickneſs, though a partial one, and I found it ſeventy-ſix feet, at the time the mountain was vomiting torrents of ſmoke and flame.

PART III.

REMARKS, OR PARTICULAR OBSERVATIONS, UPON THE NATURE OF THE SOIL, EARTHQUAKES, VOLCANOES, &c.

THE mountains around Quito appear to contain but few metals, notwithſtanding, in remote and even at the preſent times, gold in duſt has been found. The places where they actually find a conſiderable quantity of this precious metal, particularly in duſt, are commonly ſituated much lower. On the north ſide of the equator, and at two degrees diſtant from it, the Cordelier is perceived to have almoſt loſt all its height: ſcarcely it poſſeſſes one-fourth of the elevation it has in the environs of Quito; it afterwards riſes again very ſuddenly near to Popayan, which is ſituated at from eight to nine hundred toiſes above the level of the ſea*, but it lowers once again, not the eaſtern part, but the other chain on the ſide of the South Sea, which, turning aſide to the weſt, after having thrown out a branch to the eaſt of the gulph of Darien, takes the way of the iſthmus of Panama, dividing the Choco from the reſt of South America, and paſſes on to Mexico.

* The mercury ſtood in the barometer at Popayan at 22 inches $10\frac{2}{3}$ lines; nor would it vary, as is the caſe in all elevated places in the torrid zone, beyond $1\frac{1}{2}$ line.

There is much gold contained in the weſtern Cordelier, as alſo in the baſe of the eaſtern one, and in another very long chain, which breaks a little to the ſouth of Popayan, and afterwards paſſing on by Santa Fé de Bogota and Merida, ends towards Caraccas upon the North Sea; as the gold-duſt is found in ſituations low with reſpect to the reſt of the Cordelier, it is never diſcovered till two beds of different ſtrata are removed, under which it lies concealed. The firſt is of ordinary or the common earth, three or four feet thick, and ſometimes ten or twelve; beneath is often found a ſtratum or bed not ſo thick, of a yellowiſh colour, and yet lower a third, of a violet colour, which is often three or four feet in thickneſs, but ſometimes not an inch, and this it is with which the gold is mixed. The colour of the earth changes again below, becomes black as at the ſurface, and contains no metal. It appears as if the gold, before it had been covered by the two upper ſtrata, had been waſhed by the running waters. We are alſo aſſured that this ſoil, once waſhed or robbed of their riches, never produces them more, which proves that the gold had been, as it were, depoſited there: it is probable this may not hold good with regard to other mines, in which the metal may be incorporated with ſome ſtony ſubſtance. It is pretended in theſe laſt, which, properly ſpeaking, are the mines, and which are found in the bowels of the mountains, though I have never ſeen them, and are only found beyond the ſouth of the equator, there is a daily new production of metallic matter.

In the environs of Popayan, as is the caſe at Quinamajor, Barbacoa, and even at Choco, the ſituation of which places I have already noticed, they do not carry away the ſoil to be waſhed, as is done at Chili: to do this would be almoſt always too difficult, and even impoſſible, particularly as the roads are impracticable for beaſts when burthened. The gold is ſeparated from the earth by an operation upon the ſpot: a trench is made of about forty feet in length, according to the inclining of the ſoil, to which they give from five to ſix in breadth; the two firſt ſtrata are thrown out, and water paſſes through the excavation by means of an opening at the lower extremity; while this is paſſing five or ſix men are labouring in the water with ſhovels and iron rakes to ſeparate the earth which contains the metallic particles. This labour will laſt for a fortnight or three weeks, and until all the parts of the third bed comprehended in the ſpace have not only been diluted, but drawn away, and nothing remains at the bottom but the gold-duſt, with the heavieſt part of the ſand. They know when they have dug a ſufficient depth by the blackneſs of the earth adhering to the implements they uſe in digging. There is no failure of water in the country, where the rain falls almoſt inceſſantly; at the ſame time, as the ſoil is not competent to the retention of it, they have ſometimes to go far in ſearch of it; and their right to it in the foreſts is diſputed, ſo that they are obliged ſometimes to purchaſe it very dear, and it is really obtained but by weight of gold; and the expence is great to convey it to the places where they want it, which is done by a ſort of aqueducts, haſtily conſtructed of the bamboos I have before mentioned. This difficulty, joined with a want of proviſions, which in theſe places are not to be got at, or which they have not time to cultivate, obliges them frequently to abandon their works in different places, rich in the extreme.

The remainder of the labour, the gold-duſt, and the ſand with which it is intermixt, once collected, takes up but little time; a few waſhings are ſufficient; for which purpoſe they uſe a ſort of diſh or baſon, in which they toſs it about, and pour it off from time to time. The operation is frequently forwarded by the glutinous juice of certain plants, which fixes upon the ſand, but not with the ſame facility on the gold: when the latter is drawn away by the ſand, which often happens, they uſe the loadſtone to liberate it. Sometimes they have recourſe to a very oppoſite expedient: they make uſe of mercury;

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to Choco they are frequently under the neceſſity of doing this, as the metal is found mixed with the platina, a ſpecies of pyrite peculiar to the country. The artiſts who work in the deſerts of America ſhould be acquainted only with the ſimpleſt modes of chemical operations. To withdraw the quickſilver without loſing any of it, they content themſelves with a wooden diſh or baſon, in which they put a certain quantity of water; in the middle they lay two tiles, upon which they put another, heated, and which is intended to ſupport the amalgamation, and then cover the whole with a leſſer baſon, ſo that it may throw back the exhaling mercury into that below. The gold in the environs of Popayan is from twenty-one to twenty-two carats. One of theſe trenches, the dimenſions of which I have given, will not give ſometimes more than a ſingle mark, but frequently five or ſix, and even as far as eighteen or twenty, when they have been fortunate in their diſcovery. Grains of a very conſiderable ſize are ſometimes found.

Quito cannot boaſt of poſſeſſing thoſe riches, ſo ambitiouſly ſought after, that are found in Choco, but it poſſeſſes a more ſubſtantial bleſſing in the goodneſs of its ſoil. I will add to what I have already noticed, that they have frequently there the pleaſure to behold the trees bearing at the ſame time bloſſom, buds, and fruit. It cannot be doubted that the perfect equality of the ſeaſons is favourable to thoſe trees peculiar to hot countries, though it appears to have rather a contrary effect upon thoſe tranſplanted there from Europe. A convenient temperature for the latter may eaſily be found in the Cordelier, but, as the heat is not diſtributed there as with us, there muſt be always ſomething wanting; they cannot, as it were, repoſe themſelves for a certain time, and at another, ſo act as to collect their whole force; and this may be the reaſon why our fruits never reach the perfection they acquire in Europe. Perhaps, among thoſe of the country, there are alſo ſome which might be improved by changes in the ſeaſons; for even the tree which produces the moſt delicious fruit that I am acquainted with, loſes its leaves every year.

This fruit, which I can compare to none of ours, and which I ſhould be tempted to place in a rank above any, is called Chirimoya: it is frequently larger than the largeſt of our apples; its ſkin is rather tougher, though not quite ſo thick as that of our fig, and of deeper colour, and is in a manner covered with ſcales, ſlightly formed, or as they might have been engraven with a chiſel; the pulp is white and fibrous, but infinitely delicate. The Anana, when well choſen, and thoroughly ripe, is alſo of exquiſite flavour, and the moſt perfect perfume: but the moſt part of other fruits, which leaves not a little degree of acidity behind their flavour, have in the torrid zone a taſte of caſſia or ſome other, diſagreeable to thoſe not accuſtomed to it.

After all, it is not clear that, with additional attention, it would not be poſſible, not only to improve the quality of theſe fruits, but to increaſe their quantity. Agriculture, notwithſtanding the ſmiling appearance of the plains, is, as are all other arts, extremely neglected in Spaniſh America, where they ignorantly renounce many advantages it would coſt them little to benefit from. It will be with difficulty credited, though the fact is not to be diſputed, conſidering the great number of people who go every year into theſe countries, and cannot be conceived entirely ignorant of gardening, that the trees of Peru are all wild: they underſtand not here to convey the ſap of one tree into another, and as little do they comprehend the utility of thinning them of their branches. Thus muſt we be ignorant of the real value of all theſe ſo naturally fertile lands. We can only comprehend that they are capable of being rendered more productive, ſince they are ſo very liberal, with ſo little trouble to the inhabitants, in their gifts.

Perhaps the aſhes thrown out at the eruption of the volcanoes, when perfectly incorporated with the ſoil, may contribute much to its fecundity; the whole country abounds

in ſalts, almoſt every morning the ſalt-petre appears lightly, like meal, ſpread over divers places of the ſtreets and ways; I merely relate theſe particular things, and relate them only becauſe I think them worthy of notice. M. de Tournefort has obſerved that the water-melons thrive well in the ſaline ſoils of Armenia, particularly in the neighbourhood of Trois-Egliſes (three churches). To judge by the courſe of the rivers as laid down in our maps, we muſt imagine this laſt place to be very elevated. I was much ſurpriſed to find a place at fifteen or ſixteen leagues north of Quito, in every reſpect like to the ſouth of the river of Mira. The ſoil there, particularly in the village of Saint Catherine de Salines, is ſufficiently impregnated with ſalt, to furniſh the whole province with that article: excellent water-melons grow in the ſame place, and the whole of the canton is the moſt fruitful of the Cordelier.

It is eaſy enough to examine into all the depth neceſſary of the ſoil in Peru, the earth being there cut into ravines; theſe are found frequently of two hundred toiſes broad by from ſixty to eighty in depth, ſome even more conſiderable. Many of them may have been the effect of earthquakes, but the moſt part have been cauſed by the rapid currents of water from the mountains, capable in ſtorms of carrying every thing along with them; yet theſe ſtreams at other times are ſo ſhallow that one may paſs over them without wetting one's feet; ſometimes the ſides of theſe ravines are cut perpendicularly down, and if we give ourſelves the trouble of going to their origin, we diſcover they begin by a vertical fall, which ſometimes is not announced by the height of the ſurface. We frequently walk over a gentle declining ſward, and on a ſudden come upon the brink of one of theſe precipices.

It is only neceſſary to ſeek out ſome convenient deſcent into thoſe ſpecies of large beds of rivers, which contain at all times but little water, to examine, as one would deſire, all the qualities of the different ſtratas of the ſoil. No veſtige is diſtinguiſhable there of thoſe violent inundations which have left ſo many marks of their ravages in every other region. I have taken every poſſible means, but always without ſucceſs, to diſcover any ſhells; probably the mountains of Peru are too high. You ſee much of that black ſand which is attracted by the loadſtone, and it is eaſy to recogniſe that the ſtrata, the different ſhades of which are very diſtinct, ſo far from being the effect of different alluvions, are rather the expanſion of matters vomited from the volcanoes; almoſt every thing there has the appearance of being the work of fire. Some of theſe mountains are, to a very great depth, compoſed but of ſcoriæ, of pumice-ſtones and fragments of burnt ſtones of all ſizes, and ſometimes all concealed beneath a ſtratum of common earth, which bears both herbage and even trees. Theſe materials are ranged in beds of different thickneſs, which diminiſh in proportion to their diſtance from the mountain: they are obſerved to reduce themſelves to a foot, half a foot, and to an inch; nor are they loſt ſight of for four or five leagues, when they get into the vicinage of ſome other volcano, and then the ſame effect becomes viſible as in the firſt.

Theſe remarks have been made chiefly at the foot of Cotopaxi, which is become a mutilated cone, the ſummit of which has been carried away: the baſe of this volcano is rounded, and has taken a regular form by the effuſion of matter which has not been thrown out with force enough, or which was too light to be impelled. I have before ſaid, that the ſtony pyramids found at the ſummit of almoſt every mountain, have been only laid bare, perhaps, by the ſudden rolling of the ſoil from them, or by the imperceptibility of their fall. But the cauſe, there is much reaſon to imagine, has been different with reſpect to many of them, and poſſibly with Pichincha, to which we now allude. It is not impoſſible that the rock which is burnt and black, and which

contains much of that matter attracted by the loadſtone, has been heaved up by the action of a ſubterraneous fire; this fire having been without ſufficient force to make its way through the ſummit of the rock, had found other avenues to its rage.

To return to Cotopaxi, we diſcovered at its baſe, beds of burnt ſtone reduced to very ſmall particles, in thickneſs equal to five or ſix times the height of a man; the upper bed is the thickeſt, and is the ſame I doubt not that ſpreads itſelf very wide, and is hid under the good ſoil, which was originally nothing elſe than aſhes. I am led to believe we muſt attribute the upper bed of calcined ſtones to the dreadful eruption taken notice of by hiſtorians, which took place after the death of Atahualpa, King of Quito, about the beginning of 1533, and of which we have viewed with greater aſtoniſhment other more extraordinary veſtiges,—ſtones of from more than eight to nine feet diameter, carried to the diſtance of three leagues, many of which form furrows that indicate the volcano from whence they were ejected. Theſe large ſtones are not burnt like thoſe with which the baſe of the mountain is covered, and could not have been ejected ſo far but at the firſt effort of the exploſion. Thus it ſeems a like effect is not to be apprehended while the mouth of the volcano continues of its preſent breadth, which appears to be ſix hundred toiſes.

The Indians pretend this diſaſter was announced to them, and they conſidered it as the fatal moment when any oppoſition to the ſtrangers who were come to ſubjugate them, and had already much advanced their conqueſt, was become uſeleſs. Pedro Cieca de Lion, Garcilaſſo, Herrera, and all the other hiſtorians mention this circumſtance; they attribute theſe predictions in part to Huayana Capac, the twelfth and laſt emperor, and father of Atahualpa; this volcano, which is from five to ſix leagues diſtant, is called Latacunga. Were we authoriſed to compute the different eruptions by the multitude of different beds of calcined ſtones, found at the foot of this mountain, having no regard to the interior beds, we might ſet it down the twentieth in ſucceſſion: apparently there has been an iſſue of new matters, and of different colours and ſpecies at every eruption, and have been ſucceſſively ejected as they are diverſely arranged in the boſom of the mountain. In the mean time, there can be no doubt of there having been many conflagrations, and it is as certain that that of the year 1533 has not been able alone, to ſupply the quantity of matter lying at the foot of the volcano. Had all the different beds been ejected at the ſame time, the divers eſtabliſhments the Indians had in the environs of it, would have been entirely deſtroyed, whereas ſome of theſe are yet in being; but nature forgetting, thus to expreſs myſelf, her ſlow manner of acting, embraced all this portion of the Cordelier in the convulſion. I have obſerved theſe broken beds in the environs of a place called Tioupoulou, at more than four leagues from the volcano, and more than forty feet in depth; how prodigious muſt have been the agitation thus to have fractured, and piled them upon one another in the manner we find they are!

It was apparently, in remote times, and perhaps ere the country was yet inhabited, that was formed that maſs of pumice-ſtones which is at nearly ſeven leagues from Cotopaxi. The pumice-ſtones found upon the mountains are only of a certain bigneſs, and ſimply fragments. But in this place of the Cordelier which correſponds with our tenth triangle, theſe ſtones are whole rocks, parallel ſhelves of from five to ſix feet thick, within a ſpace of more than a ſquare league, the depth of which is unknown. Only imagine the nature, and what muſt have been the volume of fire capable of throwing this enormous maſs into fuſion, and doing it at once, and in the place where it now is; for it is eaſy to ſatisfy one's-ſelf it has never been thrown out of order, and that it has cooled in the very place it has been liquified. The neighbourhood has profited by this

this immenſe quarry, the whole of the little town of Latacunga, in which there are ſome very pretty houſes, has been built entirely of the ſtone taken from it, ſince the earthquake which deſtroyed it in 1698.

The laſt burning of Cotopaxi (1742,) which began in our preſence, did no miſchief but by the melting of the ſnows; although it made a new opening at the ſide near the center of the portion of the mountain continually ſnowed, while the flames made their way at the ſummit of the truncated cone. There were two ſudden inundations, viz. the 24th of June, and the ninth of December; but the laſt is incomparably the greateſt. We muſt firſt mention that the water fell at the leaſt from ſeven to eight hundred toiſes. It overthrew in its firſt impetuoſity the poſt we had availed ourſelves of as a ſtation for our ſixth and ſeventh triangles. The ſurges it formed in the plain were lifted up more than ſixty feet, and in ſome places more than one hundred and twenty. Not mentioning the infinite number of cattle it carried away, it ſwept along with it from five to ſix hundred houſes; and was the occaſion of the death of from eight to nine hundred perſons. All theſe waters had a courſe of ſeventeen or eighteen leagues to run, or rather to ravage, to the ſouth of the Cordelier, before they could find an outlet at the foot of Tongouragoua; the voyage of which was made in three hours and not more: hence the mean rapidity of the waters may be eſtimated. But if we may be permitted to judge by the various effects produced at three or four leagues from the mountain, its courſe muſt have been after the rate of fifty feet in a ſecond of time. There were very heavy ſtones more than ten or twelve feet in diameter that had changed their places, and had been tranſported more than fourteen or fifteen toiſes, upon an almoſt horizontal ſurface.

Every body at Quito was perſuaded that the waters iſſued from the bowels of the mountain; and this they were the more led to believe from the ſignification attached to the word volcano, in that country. They pretend volcanoes are of two ſpecies, *i. e.* fire and water. Indeed it is not impoſſible that large collections of water may be formed in theſe cavities, which lie high upon the mountain. This collection, as M. Deſcartes explains it, may be kept up by the evaporation of the waters below. If this evaporation is not the effect of the heat of the ſun, a very ſtrong one may be kept up by its contiguity to a ſubterraneous fire; and when theſe waters ſhall have collected to a great quantity, we are not to be ſurpriſed at its breaking down the walls or partitions that confine it, and that it ſhould ſpread all at once over the face of the country. But we do not conceive this to be the caſe with reſpect to Cotopaxi, to prove that the waters boiled in the reſervoir formed in the ſummit of the mountain for their reception, and that it was the exceſs of ebullition which occaſioned their burſting their bounds, they inſtance the drowned carcaſſes, which almoſt all appear to have been expoſed to the action of boiling water.

Many neceſſary points with relation to the preſent ſubject were cleared up to me on my viſiting the places. I had many teſtimonials from perſons entitled to all confidence, who fortunately were reſident but upon the edge, as it were, of the inundation; who aſſured me the water was not hot. They obſerved an oily matter which was inflamed, and forced on before it; and which might have produced the effect obſervable on the carcaſſes. They aſſured me alſo, when they heard the great noiſe which probably was cauſed by the firſt fall, the mountain was enveloped in the clouds, which abſolutely confutes the relation of thoſe who gave out they had ſeen the waters like a river, ruſh over the brink of the volcano, in a manner reſembling liquor pouring from an inclining vaſe. And laſtly, it appears to me on examining the extent of the ſpace which had been overflown, and every other circumſtance attending the overflow, that a very

ſmall

ſmall quantity of water might have occaſioned all the diſaſter. The inundation was not of more than a quarter of a minute's duration in many places; it was commenced by a ſtunning noiſe; neighbours reciprocally gave notice of the danger to each other; but many, inſtead of taking to the neighbouring heights, met the danger. The waters diſappeared in an inſtant, and but for the melancholy veſtiges and marks it left of its paſſage, it might have been conceived as a dream. I ſuſpect the ſnow had melted for ſome time upon the ſummit of the volcano, and that below being more diſtant from the fire, preſerved its conſiſtence, and formed a kind of baſon with the ridge of the mountain; but the melting always increaſing, and the weight augmenting too conſiderably, the waters muſt neceſſarily fall; and with it many large maſſes of fuming ſnow were obſerved to be drawn along with them, and which, although broken, were yet more than fifteen or twenty feet diameter.

Something ſimilar to this happened when a violent earthquake overthrew the little town of Latacunga, and many hamlets or villages as far as Ambato, lying towards the third part of our meridian. A very high mountain ſituated very near to Chimborazo, fell; as even did ſome others of leſs elevation which were upon the ſame line, and whoſe fragments have been of uſe to us in our triangles. There iſſued ſo great a quantity of water from them, as to cauſe a great inundation in the neighbourhood of them, if ſoil falling, diluting, and metamorphoſing itſelf into mud may be called an inundation; but it was a mud ſufficiently liquified to run under the form of ſtreams and rivers, of which many veſtiges are yet viſible. Cargavirazo, the higheſt of theſe mountains, is now but of middling elevation. Others partially crumbled; one half fell, and the other remained; having the ſide from which the falling portion ſeparated, too ſteep to be aſcended. I had the curioſity to go up one of theſe mountains named Pugnalic, at the foot of which we had a ſignal; I met with an infinity of clefts, which obliged me to proceed with caution, and the ſoil appeared to me extremely pulveriſed. Cargavirazo, when it loſt its height, took a dwarf conical figure; there muſt be much ſalt contained in it, which aids congelation. Although it is much below the line of the lower level of the ſnow on other mountains, yet is its ſummit continually covered with ſnow; and is the only marked exception to what is generally obſerved. Whole fields planted with trees are noticed, that have evidently been detached and carried to ſome leagues from each other. At Latacunga the calamity was in the extreme, whole families were buried together under the ſame roof, and abſolutely there was not a houſe in which they had not to lament the death of ſome one inhabiting it. This dreadful ſcene took place on the 20th of June 1698, one hour after mid-night, and the whole miſchief was cauſed by the firſt ſhock.

It is not aſtoniſhing that judicial aſtrology at Peru ſhould pretend to a prognoſtication of the periods of earthquakes and volcanic irruptions. A taſte for this vain ſcience is preſerved in every country, where true ſcience has yet made but little progreſs. A curious man, a ſubſtitute of the profeſſor of mathematics in the univerſity of Lima, publiſhed, in 1729, a work, under the title *D'Horloge Aſtronomique des Tremblemens de Terre*, (an Aſtronomical Dial of the Earthquakes,) in which he confined himſelf to mark out the fatal hours during which they were to be apprehended. In 1734, he ſent out another book into the world, wherein he imparted to the public a Tragic Period, to ſerve as a rule to diſtinguiſh the years ſubject to ſimilar accidents; and he did not ſcruple to advance, that if, in 1729, his aſtronomical dial was already confirmed by one hundred and forty-three obſervations, he had, in 1734, collected ſeventy others, equally conformable thereto. It has been long obſerved, that maritime places are more expoſed to theſe dreadful phenomena than inland ones. If we glance over the places of the

old world, where volcanoes have been, we ſhall find them to have been ſituated on iſlands, or upon the ſhores of the ſea. The Alps, for example, are not ſubject to earthquakes; it is the portion of Italy advancing upon the Mediterranean. So it is in America. There may be ſometimes a collection of inflammable matter concealed in the bowels of the earth, waiting only for water to take fire. Now, on any unuſual riſe of the ſea, occaſioned either by the flux or reflux of its tide, or from being ſimply impelled by the winds, it may make its way over the banks within which it is confined, into divers ſubterraneous canals, and find an entrance into many places, which under any other circumſtance it could not otherwiſe do.

It follows, evidently, from hence, that all the circumſtances of the moon's motion, ſo ſenſibly affecting the flux and reflux of the ſea, may alſo extend themſelves to earthquakes and volcanic irruptions. Thus an aſtrologer, continually talking of the head and tail of the dragon, of the moon, of the diſtance of this planet from the ſun, and its ſituation, with regard to his apogæon or perigæon, and talking of them as he ever does, in a vague and undetermined manner, may by hazard advance many things in this particular divination not altogether void of ſenſe. I have ever conſidered the ſubject worthy of diſcuſſion; and I will now, in a few words, offer here the reſult of my obſervations, which falls naturally within the plan of this relation.

The great number of individual cauſes which contribute to theſe dreadful accidents, is, perhaps, the reaſon why the concurrence of many of them often ſupply what is wanted on the ſide of others; but the preciſe inſtant, and even the time of the effect muſt be, neceſſarily, more uncertain. Perhaps the heat of the ſun may alſo have ſome influence: we know, at leaſt, that it is aſſiſting to the inflaming ingredients or matters chemiſts ſometimes mix together, to give us a repreſentation of a volcano when emitting fire. The town of Lima has been three times deſtroyed: the firſt time, in 1586; the two laſt, in 1687 and 1746. The firſt diſaſter happened in July the 9th; but the two others in October the 19th and 28th; after the equinoctial tides had thrown a great quantity of water into the ſubterraneous cavities, and when the ſun, advancing in the auſtral hemiſphere, began to diſpenſe his greateſt heat. There have been three other very conſiderable earthquakes; the one of the 17th June 1678, we cannot urge as an example to our purpoſe; but the other two happened in November the 27th and 13th, one in 1630, and the laſt in 1655.

Thus, it appears, that of the ſix violent earthquakes with which Lima has been afflicted, inſtead of having happened at ſeaſons in the year remote from each other, four have taken place in the months of October and November. This ſingularity may, perhaps, be regarded as chance: but, is it not poſſible, that the return of the heat, and high tides, may have contributed thereto? The gales that blow upon the coaſt of Peru in the environs of Lima, may have a tendency to keep theſe back in the September equinox, longer than in other places, conſidering alſo, that numbers of theſe places are ſituated far ſouthward, although in the torrid zone. The communication there is between the different ſubterraneous cavities may alſo give a wider ſcope to the effect of the flux and reflux of the tide. The moſt violent of the different earthquakes I have felt, threw down ſome houſes in the vicinage of Latacunga, and killed many people. There was ſeen at the ſame time, although not at the ſame hour, a flame iſſuing from a lake, on a neighbouring mountain. This was at the beginning of December of the year 1736. From other ſimilar obſervations I have made, and all things elſe conſidered, it appears to me, confining myſelf to a ſimple fact, that if in all ſeaſons in Peru they are liable to theſe diſaſtrous phenomena, they are nevertheleſs rather more liable to them in the latter months of the year.

The

The author we have already ſpoken of, aſſures us there is abſolutely no other critical time, than that of the ſix hours and ſome minutes the moon takes up to paſs the horary circle between three and nine. This is preciſely the time of reflux: for it is full ſea upon almoſt all the coaſt of South America in the South Sea, when the moon paſſes the horary circle at three. But let us examine how many different circumſtances muſt concur to prove that our author's rule muſt be an exact one. It is neceſſary the focus of the fire be always in the ſame place; the water muſt always take the ſame courſe, enter always with the ſame celerity, and that the mixture ever take up exactly the ſame portion of time to enflame. If it is not neceſſary that all theſe circumſtances ſhould concur, very exact compenſation ſhould at leaſt be made to ſupply the defect. The earthquake, alſo, of the year 1746, which occaſioned the deſtruction of Lima, did not happen while the moon was on her way of the horary circle between three and nine, but, on the contrary, while ſhe was paſſing the ſame circle between nine and three. The tragic period is not leſs falſe. The author pretends, that nothing is to be apprehended but when the horns of the moon are found in the malignant ſigns of Scorpion, or Amphora; whereas theſe horns were then in the ſigns of the Virgin and Piſces.

There are few weeks during which ſome ſlight ſhocks of an earthquake are not felt; if it is not in one place, it is in another; frequently no perſon pays any attention to them, nor gives himſelf the trouble to collect or mark their dates. An aſtrologer, therefore, is at full liberty to boaſt, that the obſervation has never been at variance with his conjectures. The only earthquakes to be dreaded by him are thoſe attendant with the moſt diſaſtrous conſequences. Happily theſe are rare, and may, after all, happen as well at one ſeaſon as at another. They have always the wiſe precaution, not to confine their prognoſtications within too narrow bounds; and beſide that, the pretended rule ought at leaſt to quadrate with ſome one precedent calamity, with thoſe upon which they form them.

After all, if we would proceed with any method to diſcover if there is really a period that may be denominated tragic, we muſt go another way to work. We ſhould begin by the examination of the ſimpleſt facts: the firſt object of our obſervations, it ſeems to me, ſhould be the eruptions of the volcanos. In truth, with reſpect to the return of earthquakes, the events are extremely complicated; they may be tranſmitted ſolely by the contiguity of lands, though they be very remote from the point which correſponds to the upper focus of the eruption. In every place ſhocks are felt around to a certain diſtance, and yet we are ignorant where particularly to fix its origin: whereas the points of volcanoes are more determinate in every country, and, conſequently, ſupply us with leſs equivocal obſervations. Any regular returns of theſe eruptions have never been remarked; and this muſt neceſſarily be the caſe with reſpect to earthquakes, which, for the reaſons we have ſtated, are leſs under the controul of any rules, and becauſe that, in every place, they muſt depend upon a great number of caſualties. The rain-waters very often produce the ſame effects as the ſea-water, and it ſhould be conſidered, it is in the latter months that the rains fall the moſt in the countries we are ſpeaking of. Sometimes a very violent ſhock in the Cordelier is felt but over a very confined ſpace. There is then reaſon to imagine the inflammable maſs lies very deep, and that the ſea has no immediate connection with the accident. Both the ſea and rains contribute to many ſhocks, which is a double reaſon they ſhould be very frequent.

A compariſon of volcanic eruptions with earthquakes throws ſome light upon many particulars of theſe laſt phenomena. Volcanoes, when in flames, act, as it were, by fits; the flame or ſmoke is ſeen to iſſue by whiffs or blaſts. When I was engaged on one of our ſtations at Senegualap, my night's ſleep was continually interrupted by the

roaring of the volcano of Macas, called Sangai. I was more than eighteen thouſand toiſes diſtant from it; notwithſtanding, the noiſe was ſo frightful, as every moment to wake me. This mountain is of a conic form, wanting only the point, whoſe ſides are perfectly regular. The people of the country all agree, that the maſs of this mountain is continually diminiſhing; its actual height above the ſea is two thouſand ſix hundred and ſixty-four toiſes. The flames iſſue from its ſummit, and a ſtream of inflamed matter often rolls down one of its ſides; a ravine at its baſe has taken the name of the Sulphur River. The roarings of the volcano are ſometimes like the noiſe of a ſharp peal of thunder; but they quickly reſume their regular periods, and rumbling ſounds, the repetition of which ſo much incommoded me. I have obſerved the ſame puffs of ſmoke iſſue out at regular intervals from Cotopaxi, and form a ſort of ſheaves of light. The intervals between their emiſſions, when I obſerved them, were from forty-two to forty-three ſeconds. The inflamed matter in the interior of the volcano doubtleſs extended each time its dilatation: but this dilatation in part weakening, the inflammable parts alſo a little diminiſhed; which would open a way for the exterior air to re-enter, either by the upper or ſome other opening. Perhaps, alſo, at this interval, other inflammable matter, unlooked for, may find an eaſy introduction; and inſtantly the eruption acquires additional force, and re-produces a new emiſſion of ſmoke, or a new roar.

The materials which take fire in the bowels of the earth, and which cauſe earthquakes, muſt neceſſarily be ſubject to the ſame changes. When the fire takes in a concavity, the dilatation of the inflammable matter and air will naturally ſpread wide, and be conveyed to other ſubterraneous cavities communicating with the firſt. The roof of the vault is alſo violently forced, as are its ſides, although the maſs of matter lies preciſely beneath. The direction of the effort will depend then upon the horizontal or inclined poſition of the cavity; hence the cauſe why ſometimes the walls of buildings remain or not, according to the manner they are ſituated. The roof of the vault returns to its place, after the neceſſary vibrations, which are independent of the action of the fire. Their ſpeed muſt depend upon the ſize of the vault, its thickneſs, and the nature of the materials of which it is formed. But the effort of the exploſion abating a little, while the air becomes much too compreſſed in the adjacent cavities, it makes a violent reflux towards the place of eruption, which opens another acceſs, and gives occaſion to a new and more violent ſhock. Thus there muſt neceſſarily be returns marked by a more exceſſive agitation; and their intervals will be more ſenſibly regular, till ſome conſiderable change happens, either in the inflamed matter, or the diſpoſition of the cavity. The weakeſt ſhocks are thoſe from the earth already ſhaken; the ſtrongeſt thoſe cauſed immediately by the inflammation, which are analogous to the roarings of the volcanoes, and which are repeated more or leſs frequently, according to the facility with which the materials take fire, and alſo, as their volume has relation with the extent of the ſpaces in which they are incloſed.

A country containing in it ſo many inflammable materials, muſt be a ſubject to furniſh many other remarks to natural hiſtory. Nature has there, thus to expreſs myſelf, continually in her hands the materials and implements for extraordinary operations. Exhalations may produce, in certain places, the ſame caſualties as in the famous Grotto del Cani. Waters impregnated with mineral matters will make hot-baths, while, in other places, we ſhall ſee them labouring at incruſtations and cryſtalizations. But I muſt wave theſe details till another time, that I may give you a little account of the part of America over which I paſſed on my return.

PART

PART IV.

RETURN OF THE AUTHOR FROM QUITO TO THE NORTH SEA, BY WAY OF THE RIVER MAGDALENE;—OBSERVATIONS ON THE LOADSTONE, &c. &c.

WHEN I returned to Europe, and left Popayan, inſtead of taking an immediately eaſt direction, and paſſing out of the Cordelier by Guanacas, I could continue my way northward between the two chains of mountains, and croſs the eaſtern one near its extremity. The eaſtern Cordelier has many ways over it. There is one about forty-five leagues more to the north, which leads from Cartago to Ibague, over which we muſt be drawn by oxen, inſtead of mules. Theſe animals have rings through the cartilage of their noſes, to which are faſtened leather thongs, which are uſed as reins: they have more ſtrength to bear the fatigue of ſo oppreſſive a road; the traveller is leſs expoſed to being fatigued by their movements, which are ſlow; and beſides, the feet of oxen, by their particular make, are better adapted to extricate themſelves from the mires, in which are found neither any ſtones, nor any ſolid body to prevent them ſinking. I had many reaſons for preferring the Paſs of Guanacas; but what induced me the more readily to make choice of it, was, being deſirous of examining the courſe of the river Magdalene, I was very glad to reach as ſoon as poſſible its ſhores. I had traced a map of the countries I had gone over, and I propoſed to myſelf to make one of thoſe waſhed by this river.

It is exceedingly eaſy for an obſerver to determine the ſituation of any place, through which he is led, reſpectively, in all this part of America. It is ſufficient, with the compaſs, to take the direction of the moſt diſtant mountains in view. We chance, after a few days, to journey at the baſe of theſe mountains, and others in the diſtance preſent themſelves to our ſight. I found it equally eaſy to aſcertain the length of the way. My courſe was almoſt always pretty exact to the north; I made my way, as it almoſt always happens, but by ſhort journeys; when one is obliged to carry one's bed and proviſions along with one; beſides our batings were frequent. Sometimes we have been ſtopped by the ſudden ſwelling of ſome river, at others by our mules ſtraying, which occaſioned the loſs of part of a day to find them. They are never tied to one another, but left at liberty, that they may find more eaſily and with leſs riſk provender in the woods, and on the brinks of the precipices: there is no better method known to guard againſt loſing them, than by accuſtoming them to the company of horſes, which will ſerve them as a guide, and will ſeldom wander far. I endeavoured to benefit all I could from theſe forced batings, of which I did not always complain, by acquiring a more perfect knowledge of the country. I took the latitude every time it was in my power. I had a round iron plate with a hole pierced through it, by which I was enabled to form a gnomon, which I ſometimes raiſed to eight or nine feet in height by reſting it upon the trunk of ſome tree, or againſt the poſts of my tent; when, inſtead of encamping in the open field, I met with any cabin or houſe, the facility of the operation encreaſed; I had only to throw aſide a little of the thatch, to introduce my plate of iron. To avoid the error of any unevenneſs of the ſurface which commonly was not horizontal, I received the rays of the ſun upon a tile or piece of board; from the ſmall hole I let fall a plumb-line; I meaſured with the equal diviſions of a compaſs of proportion, uſing a reed for my rule, two ſides of a triangle, the length of the ray of light which ſerved for the hypothenuſe, and the ſhorteſt diſtance

from the point on which the ray fell to the plumb-line; and afterwards reſolved the triangle by a calculation, treating it, as it was effectively, as a rectangle.

Theſe obſervations, frequently repeated, corrected one in the eſtimation I made of the length of diſtances. The badneſs of the road in the Cordelier, the paſſage of the ſtreams and rivers we frequently meet with when we leave it, and when we coaſt the baſe of the chain of mountains, will throw us into errors, howſoever experienced we may be. The reiterated obſervations of the latitude came to my aid, which, in combining with the directions I obtain with the load-ſtone, I attained to determinations ſufficiently exact for all the ordinary purpoſes of geography. We follow the ſhore of the Magdalene almoſt all the way from Plata to Honda, and moſt generally its weſtern ſide. Honda is a very cheerful little town, and the firſt port we meet with up the river, which is nevertheleſs navigable conſiderably above. I had no means during my navigation, of availing myſelf of the heights of the mountains; but I meaſured from time to time the rapidity of the run of the river, and continually noticed its direction. It took me up fourteen days to deſcend, ſubmitting myſelf to the force of its current, and every night I ſlept on ſhore. The time I remained at Mompox, which is a very pretty port about ſeven leagues above the confluence of the Magdalene with the Cauca, is not comprehended in theſe fourteen days. I annex here under the form of notes, the reſult of all my aſcertainments, which were confirmed, when on the 30th of September 1743 I reached the lower part of the river in the vicinage of Carthagena and Saint Martha, the ſituation of which places with regard to Quito, I was acquainted with *.

* PLACES *ſituated in the* CORDELIER.	Northern latitude.	Eaſtern longitude with relation to Quito.
	D. M.	D. M.
Combal, a town ſituated at the foot of a volcano always covered with ſnow,	0 49	0 42
Ypiales	0 45	0 54
Paſto, a ſmall town at the foot of a volcano almoſt always burning,	1 13½	1 13
Mercaderes, a village three leagues to the north of the river Mayo, which ſeparates the two biſhoprics of Quito and Popayan; and to which Huayana-Capac, the laſt Inca, carried his conqueſts towards the north,	1 45	1 19
Popayan, an epiſcopal city,	2 27	1 54
PLACES *out of the* CORDELIER.		
La Plata,	2 23	2 51
Bacche, a hamlet half a league weſt of the river Magdalene,	3 16	3 25
Neyva, a ſmall town on the other ſide of the river Magdalene, and nearly three leagues and a half diſtant from Bacche, and ſouth-ſouth-eaſt of it,		
La Villa Vieja, upon the eaſt ſide of the ſame river, and three leagues north-eaſt from the ſame hamlet,		
Honda, the firſt port up the river Magdalene,	5 16	4 9
Mariquita, a ſmall town four leagues to the weſt one quarter ſouth-weſt of Honda; the river Guali running from Mariquita, paſſes through the middle of Honda,		
Ibague, a ſmall town eighteen leagues to the ſouth of Honda, and eleven to the weſt, the road divides here from Carthago, and which they journey with oxen. Ibague is five or ſix leagues to the weſt of the Magdalene,		
Mompox, a very commercial port upon the weſtern bank of the river Magdalene,	9 19	45
Tamalameque, a ſmall town upon the eaſt ſhore of the river; — is nearly eight leagues and a half to the ſouth of Mompox, and thirteen leagues to the eaſt,		
Laporquera, a town upon the weſtern ſide of the Magdalene, and three leagues from the mouth of it,	10 59	3 58

I was under the neceſſity, in order to attain to a ſufficient exactitude in the conſtruction of my map, frequently to notice the variation of the needle, and I was farther invited to this from a conviction how much ſuch ſorts of experiments are intereſting to philoſophy. I remarked at Quito the magnetic needle to dip towards the north nearly ten degrees below the horizon. I ſay nearly, becauſe, having cauſed three different needles to be made of different lengths, I could not ſucceed in fixing them preciſely to the ſame inclination. At the period the variation was found to be eight degrees and a half towards the north-eaſt, it was at Plata the ſame the following year in July; and four months after, I found it at Saint Martha at ſix degrees thirty-five minutes, and always to the north-eaſt. I muſt notice by the way, as it is ſubject to divers irregularities, I have frequently found portions of rocks ſpread over the ſurface of the ſoil, which exteriorly were black, and appeared to have been expoſed to the action of fire, and I really believe they had been thrown there by the exploſion of ſome volcano. I can compare them to nothing ſo properly as maſſes of clay, ſplit and chapped by the ſun, and afterwards converted into ſtone. The variation of the needle differs ſo much in theſe places, that you have only to advance five or ſix paces, and you find a difference ſometimes of more than thirty degrees in the direction of it. Theſe ſtones are noticed in ſeveral places; but at about one third of the diſtance on the way from Plata to Honda, three leagues or thereabouts from Bacche, ſome remarkable ones are to be found. Two of the biggeſt of them have a ſurface of nearly twenty feet in length, by eleven high; it is very ſmooth, not chipped, and upon it are engraved many characters and figures. Similar ſtones equally well engraved are found in places more remote and higher in the neighbourhood of the Cordelier, but I have ſeen none of them; I have made a drawing of the laſt. They call them, but very improperly in the country, painted ſtones (Piedras Pintadas); probably ſome inſcription is deſigned by all theſe figures and characters, and points out by hieroglyphics, the time and circumſtances of the eruption of volcanoes, or other events, as ſome extraordinary and ſudden ſwell of the river. It appears to me to have been a work of much deliberation and patience; the figures are cut two inches and a half deep at leaſt. The property theſe ſtones have to act ſo forcibly upon the compaſs, demonſtrates them to contain ſome portion of iron in their compoſition, but theſe parts lie very much concealed; the interior of the ſtone is white, and it is beſide of very fine grain.

I ſhall take occaſion, while upon the ſubject of the load-ſtone, to communicate the reſult of ſome experiments which occupied me much on my journey home. It has not relation to a phenomenon that required but one examination, but a ſucceſſion of examinations made at different places more or leſs diſtant from the equator. I do not intend to examine if in magnetiſm the governing force is diſtinct or ſeparable from the attractive force; but I am aware that many perſons pretend that one of the poles of the earth is much more attractive than the other, and I could not make choice in the world of a more proper ſituation than Quito, to work at the deciſion of this queſtion. With this deſign, I cauſed to be made a long needle of copper, ſuſpended as a magnetic needle. I had a ſmall nail ſoldered to one of its extremities and ſet upright, I placed this needle horizontally upon a pivot, and to the nail juſt mentioned, which was vertical, I applied an ordinary magnetic needle; and I ſo contrived it, by ſmall counter-weights, that the whole was in exact equilibrium, and could turn freely about. It is evident that if one of the magnetic poles has more virtue than the other; as if, for example, the north pole has more force, two effects muſt neceſſarily ariſe; not only the magnetic needle will take its ordinary direction, but being attracted more powerfully

fully by the north pole of the earth, it will communicate by degrees a motion to the copper needle, and both in moving towards the north, will fix themſelves upon the magnetic meridian; ſo that the two needles will form a ſtraight line.

Every thing being prepared, I made not one only, but twenty or thirty experiments at Quito; and I made them with the more care, as I was prejudiced in favour of the opinion I propoſed to myſelf to verify or confirm: but all I could do, the copper needle was never moved by the other, and remained always ſtationary. Neither could I attribute its repoſe to the friction of the pivot, for when I put the two needles together, they took very properly the direction given to them by the loadſtone. I alſo, ſometimes, put the copper needle in motion, while the other was left at perfect liberty, and the firſt remained always indifferently fixed in every direction. From hence it may be naturally concluded that the two magnetic poles of the earth, which perhaps reſult themſelves from the complication of many others, have ſenſibly the ſame power. Our ordinary magnetic needles, when they take a certain direction, yield to this power; and they cannot advance, literally, in their length, becauſe they are kept back by their centre, but as that I made uſe of in my experiments was in every reſpect moveable, and nevertheleſs it made no advance neither to the north nor ſouth, it was a demonſtration not to be diſputed, that one of its extremities had no more tendency towards one of the poles, than its other extremity to the oppoſite.

The equality between the abſolute forces being eſtabliſhed, although contrary to my expectation, it remained to me to examine the relative powers; I mean to ſay the perceptible power of the part of the pole from which we may be receding, and that of the other which ſhould naturally encreaſe in proportion as we draw near it, and this I could do with much facility in my journey, by a repetition of obſervations in places diverſely remote from the equator. I made three trials on my way, the third at Porquera, a little town low on the river Magdalene, and three leagues from its mouth; but the ſucceſs of theſe experiments was ſimilar to that at Quito. The centre of gravity of the magnetic needle, although moveable, remained always at reſt while placed upon the magnetic meridian. I now began to think I had not advanced far enough northward, notwithſtanding I was already eleven degrees removed from the equator, which made twenty degrees of difference between the diſtances of the two oppoſite poles. At length on my arrival in France, I again repeated the experiment, but with no other ſucceſs. As I was apprehenſive I had not taken all the precautions neceſſary, it did not ſatisfy me to proceed in the ſame manner, I had recourſe to another expedient by which I could not fail to perceive the moſt minute inequality. I ſuſpended a magnetic needle from its center of gravity, with a number of hairs five or ſix feet in length; this new line would not fall vertically, but incline below a little to the north, if it is true that the boreal magnetic pole to which we are moſt adjacent, acts with a greater force than its oppoſite; and a digreſſion of five ſeconds, or a difference in the power not more than a forty thouſandth part of the weight of the needle, would have been manifeſt to me. But by all the attention I was competent to, I was not able to diſcern any horizontal tendency which compoſed itſelf with the weight, or altered at all the direction; it always appeared to me that the hair hung vertically, and that while the needle pointed north and ſouth, it made not the leaſt effort in the direction of its length, to move towards either of the poles.

It is only ſince my return, and reflecting more on the ſubject, that I have at length conceived the reaſon for the conſtant perfect equality, which appeared to me ſo extraordinary, always prevailing between the attractive powers of the two poles. The direction of the magnetic efflux may be compared to the rays of light, whoſe power

augments

augments or diminiſhes according as theſe rays are found united in a greater or leſſer ſpace. When the rays are divergent, the force of light decreaſes; and it continues to do ſo, at leaſt until, by the falling of it upon a convex glaſs, or a concave mirror, the divergency is changed to a convergency: then the force of light increaſes, although received at a greater diſtance from the luminous body. So it ſhould be with regard to the magnetic virtue. The directions, according to which this power operates, are a ſpecies of meridians, and they are at the greateſt poſſible diſtance from each other in the environs of the equator; it is there, then, the magnetic power ſhould be the weakeſt. But if we advance into either of the other hemiſpheres, we are not to imagine that it is the effect of the pole to which we may be approaching, that ſolely operates to its augmentation; it will be alſo the effect of the other pole; ſince theſe directions are the ſame as the rays of light, which, from being divergent, become convergent. Thoſe directions which are the fartheſt ſeparated from each other towards the equator, mutually draw to each other as they go forward. According to this, the force of the auſtral magnetic pole as felt at Paris, ſhould be ſenſibly equal to that we ſhould experience from the part of the ſame pole, if we were at the ſame diſtance from the equator on the other ſide. Thus, generally ſpeaking, and ſetting aſide every conſideration upon which one might inſiſt, it matters not on what place of the earth we ſtand; it ſignifies nothing, that it is or is not an equal diſtance from the two poles; we ſhall always feel the action of one pole as powerfully as the other. It is true, that the force of each pole will be greater or leſs, but the two will nevertheleſs be always equal, which alſo my obſervations confirm. The reſiſtance of the air will apparently introduce ſome difference between the two actions, if the magnetic matter creeps upon the ſurface of the ground, and if it has a long voyage to make through the groſs air we breathe. But the inclining of the needles marks out the route taken by the magnetic matter; and this route varies little from a vertical one below, which demonſtrates, that the magnetic matter has preſently paſſed through the groſſer air, and that its paſſage through the higher region is made above the denſer part of the atmoſphere.

My readers will, doubtleſs, not diſapprove, that, in giving him an account of theſe obſervations, I have conducted him from Peru to Europe, to inſtantly carry him back towards the middle of the torrid zone. When I got out of the Cordelier, I had no reaſon to doubt, that, if the country was low enough, I ſhould find it nearly the ſame in quality as that on the other ſide of the double chain of mountains. In the meantime, I was ſtruck at the firſt view, with the difference in many reſpects. Plata is of moderate elevation: the mercury in the barometer ſtood exactly at twenty-five inches; and at Honda at twenty-ſeven inches and five lines and three-quarters. The upper grounds are all ſtony, and the country naked. The environs of Plata, which is four or five leagues to the weſt of the river Magdalene, are tolerably peopled; the reſt but thinly; and the places or towns, Honda and Mompox excepted, towards the ſea, are of little conſideration. Mompox is ornamented with a very fine quay, which they have been obliged to raiſe high, by reaſon of the ſudden ſwells to which the river is liable; for, although it is very wide, it riſes every year, at the beginning of December, to twelve or thirteen feet. It has its courſe between rocks, and upon ſand, as far as the midway between Honda and Mompox; but it experiences, below, much the ſame change as the interior of the Cordelier. It rolls it waters over ſlime; its fine ſhores are converted below almoſt entirely into moraſſes, ſome of which ſpread very wide around.

One ſingular circumſtance has frequently drawn my attention throughout all theſe countries; and that is, all the mountains near which I journeyed, and which are at the

baſe, and on the outſide of the great Cordelier, appear to me to have a different origin from thoſe I had before ſeen. The beds of different ſoils, and oftener the rocks, of which they were formed, were not, as were the others, of various inclinations; they were perfectly horizontal; and ſometimes I noticed them to correſpond with others, in very remote mountains. The moſt part of theſe are two or three hundred toiſes high, and are almoſt all of them inacceſſible; they are frequently cut like walls, which gives one an opportunity of better examining their horizontal beds, of which they ſhow the extremities. The ſpectacle is not beautiful, but it is rare and ſingular. When chance has formed them round, and abſolutely detached them from others, each of their beds takes the form of a very flat cylinder, or truncated cone, of but little height; and theſe different beds lying one upon another, and diſtinguiſhed by their colours and their various ſloping outlines, have frequently given to all a form of artificial workmanſhip, executed with the greateſt juſtneſs. One of theſe ſort of mountains ſtands about a league from Honda, upon the bank of the Guali, on the road to Mariquita, which is in view of every traveller; but were I to give a deſcription of it, I ſhould firſt requeſt all the credit due to a relater who has no intereſt in departing from the truth, and has his whole life held an untruth in the greateſt abhorrence. The mountains in theſe countries are ſeen continually to take the appearance of ancient and ſumptuous edifices, chapels, domes, caſtles; ſometimes fortifications with lengthened curtains provided with baſtions. It is difficult, in noticing theſe objects, and the correſpondent nature of their beds, to doubt that the earth around is not much ſunk. It appears thoſe mountains, whoſe baſes were more ſolidly ſupported, are left as a ſpecies of teſtimony, or as monuments, which indicate the height of the ancient ſoil.

I am not acquainted with the environs of Orinoko, but from report; but I know that, in many places there, the mountains are formed with horizontal beds, and that their ſummits are perfectly level platforms. There is nothing, I believe, found ſimilar to this in Peru, notwithſtanding the almoſt infinite variety there ſpread around. All the beds incline around every ſummit, conforming themſelves to the declivity of the hills. If, as there is an appearance, this portion of the ſurface of the earth is ſunk from one part to the other of the chain of mountains which, parting ſouth of Popayan, ſeparate the river Magdalene from the Orinoko, the ſubmerſion of the Atlantide, of which Plato has ſpoken, will become much more plauſible. Our imagination revolts, when we would repreſent to ourſelves ſuch great alterations made in the exterior form of our globe, the actual ſtate of which appears ſo permanent; but we are not at liberty, in this regard, entirely to conjecture of moſt remote times from the preſent. Great changes have their bounds: they are always ſucceeded by a ſtate of equilibrium or relative repoſe, to which they lead, and which muſt have a certain duration.

The road is even from Plata to Honda, and is croſſed by many ſmall rivers which run into the Magdalene; which river receives alſo other ſmall ones on the oppoſite ſide, and principally the Bogota, which paſſes by Santa-Fe, and joins the Magdalene over againſt Ibagué, whoſe ſituation I have already deſcribed. The Bogota is very conſiderable, even at Santa-Fe. A higher cataract is not to be found in the world, than is formed by it at fifteen or ſixteen leagues below this town, and about eight leagues from the Magdalene, at a place called Tequendama, being ſuppoſed to be about two hundred fathoms in height.*

* The remainder is omitted, as the topics are better illuſtrated in the following voyage.

Drawn by A. de Humboldt.

Fall of Tequendama

A

VOYAGE TO SOUTH AMERICA,

DESCRIBING AT LARGE

THE SPANISH CITIES, TOWNS, PROVINCES, &c. ON THAT EXTENSIVE CONTINENT:

Undertaken, by command of the King of Spain, by DON GEORGE JUAN, and DON ANTONIO DE ULLOA, Captains of the Spaniſh Navy, Fellows of the Royal Society of London, Members of the Royal Academy at Paris, &c. &c.—Tranſlated from the original Spaniſh; with Notes and Obſervations; and an Account of the Brazils.

By JOHN ADAMS, *Eſq. of Waltham Abbey; who reſided ſeveral Years in thoſe Parts.**

PREFACE.

IT is certainly a very true, as well as trite obſervation, that knowledge is the food of the mind; and if this be ſo, then certainly that ought to have the preference, which is at once equally nutritive and pleaſant. On this account, books of voyages and travels have been in ſuch general eſteem, and at the ſame time have been commended by perſons of the greateſt ſagacity, and in the higheſt reputation for ſuperior underſtanding. The pleaſantneſs of this kind of reading has attracted many, who had before no reliſh for learning, and brought them by degrees to enter upon ſeverer inquiries, in order more effectually to gratify that curioſity which this kind of ſtudy naturally excites. Men of higher abilities have turned their thoughts on this ſubject, from the conſideration of its real utility. This induced the ingenious Hakluyt to make that noble collection, which procured him the patronage of Queen Elizabeth's ableſt miniſter. This led the elder Thevenot, to enrich the French language with a very copious collection of the ſame kind. And, not to multiply examples, this made voyages and travels the favourite ſtudy of the judicious Locke, who looked upon it as the beſt method of acquiring thoſe uſeful and practical lights, that ſerve moſt effectually to ſtrengthen, and alſo to enlarge the human underſtanding.

It is indeed true, that in reſpect to this, as well as other branches of ſciences, there have been many productions, which for a time have been applauded and admired, and which, notwithſtanding, have ſerved rather to miſlead, than to inſtruct men's minds, by a diſplay of ſpecious falſehoods, highly acceptable to ſuch as read merely for amuſement. But theſe authors of marvellous, and very often incredible relations; of ſtrange and ſurpriſing adventures; theſe pompous deſcribers of wonderful curioſities, which men

* This tranſlation has paſſed through five Editions.

of more penetration, but of ſounder judgments, could never afterwards, though purſuing the ſame routes, with their utmoſt diligence diſcover; quickly loſt that credit, which novelty alone gave them; and, being once exploded by ſenſible judges, gradually ſunk, firſt into the contempt, and then into the oblivion, they deſerved.

Theſe books, however, are thus far uſeful, that they ſerve to give us a clearer idea of our wants, and a more juſt notion, than perhaps we could otherwiſe obtain, of the qualities requiſite to render voyages and travels truly worthy of eſteem. They demonſtrate very fully, that, in the firſt place, it is of great conſequence, to know the characters of the authors we peruſe, that we may judge of the credit that is due to their reports; and this as well in point of abilities, as of veracity; for many writers impoſe on the world, not through any evil intention of deceiving others, but becauſe they have been deceived themſelves. They relate falſehoods, but they believe them: we cannot therefore juſtly accuſe them of want of candour; the fault properly to be laid to their charge is credulity. We are moſt in danger of ſuffering by thoſe authors, who have either lived in, or paſſed through countries, that are rarely viſited, and into which few are permitted to come. This protects their miſtakes for a great length of time; and we know that preſcription is a fortreſs in which error often holds out a long ſiege. There cannot, therefore, be a more acceptable tribute offered to the republic of letters, than voyages or travels, compoſed by perſons of eſtabliſhed reputation for learning, and in equal eſteem for their probity. But the value of the preſent is much enhanced, if theſe voyages or travels reſpect countries little known, the coaſts of which only, perhaps, have been accidentally viſited by ſeamen, or haraſſed and plundered by privateers, perſons often of ſuſpected faith, and almoſt always of very limited capacities. Some few exceptions indeed there may be to this general rule; but even in regard to theſe, there will be neceſſarily great defects; and, allowing them their higheſt merit, they can only report truly the little they have ſeen: and what idea can we form of a Turkey carpet, if we look only at the border, or, it may be, at the ſelvage?

The authors, whoſe writings are now offered to the public in an Engliſh dreſs, are men of the moſt reſpectable characters, men diſtinguiſhed for their parts and learning, and yet more for their candour and integrity: men who did not travel through accident, but by choice; and this not barely their own, but approved by authority, and approved becauſe they were known to be equal to the taſk they undertook; and that taſk was, the examining every thing they went to ſee, with all poſſible care and ſcrupulous attention, in order to furniſh the public with ſuch lights as might be entirely and ſafely depended on. This was the deſign which they undertook: this deſign they executed with the circumſpection it deſerved; and the punctuality with which they diſcharged it, has procured them the juſt returns of favour from their Royal Maſter, and the applauſe and approbation of the beſt judges in their own and other countries. Theſe are circumſtances that diſtinguiſh, in a very ſingular degree, the following work; circumſtances that, no doubt, will have their proper weight, and which it would be entirely needleſs for us to enforce, though it would have been inexcuſable not to have mentioned them.

There is, however, one other circumſtance that deſerves particular notice, which is, that, with reſpect to the characters and abilities of theſe gentlemen, all does not reſt either upon their writings or foreign authorities: they have been in this country; were ſeen and known by thoſe who were beſt able to judge of their merit; and, in conſequence of that, are both of them members of our Royal ſociety. They continued here ſome time, converſed indifferently with all ſorts of people, and were unanimouſly allowed to have very extenſive views in reſpect to ſcience; great ſagacity; much application;

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were very aſſiduous and very accurate in their inquiries, as well as candid and communicative in relation to the diſcoveries and obſervations which they had made in their travels;—men of ſuch talents, and ſuch diſpoſitions, muſt render themſelves agreeable every where; much more in a country of liberty, and where, without partiality, we may have leave to ſay, the ſciences are as deeply rooted, and flouriſh in as high a degree, as in any other in Europe. We will add, that, from a knowledge of their merit and candour, they not only received the greateſt civilities, but the moſt ſeaſonable protection, to which, in ſome meaſure, the world is indebted for this very performance, as the reader will learn in the peruſal of it; accompanied with thoſe marks of gratitude and reſpect, which were due to their kind benefactors, more eſpecially the late worthy preſident of the Royal ſociety, whoſe memory is juſtly dear to all who had the honour of being in the leaſt acquainted with him *; and that humane and polite patron of every uſeful branch of literature, Earl Stanhope; whoſe noble qualities reflect honour on his titles, and who inherits the virtues of his illuſtrious father, one of the braveſt men, and one of the moſt diſintereſted miniſters, this nation could ever boaſt.

After doing juſtice to the authors, let us come to the work itſelf. In pieces of this kind, there is, generally ſpeaking, no part ſo tedious and unpleaſant, at leaſt to the generality of readers, as what regards occurrences at ſea; and yet theſe are allowed to have their utility. In the following ſheets, however, though they are found pretty copiouſly, we ſhall ſee them without thoſe defects. If theſe writers mention the variation of the compaſs, they explain the nature, inquire into the cauſe, and ſhow the uſes that ariſe from obſerving this phenomenon. In this manner, they treat of calms, winds, currents, and other incidents, in ſo ſuccinct and ſcientific a method, as at the ſame time to be very inſtructive, and not unentertaining. In this reſpect, we may look upon their narratives as a ſort of practical introduction to the art of navigation, which we not only read without diſguſt, but which, when read with any tolerable attention, will enable us to underſtand many paſſages in other writers of voyages, which we ſhould otherwiſe paſs over, as utterly unintereſting and unintelligible. This obſervation, the reader will find ſo fully verified, from his own experience, that, I am confident, he will think it no ſmall recommendation to the book; and the more ſo, becauſe, though very neceſſary, and much wanted, the difficulties attending it had hitherto, in a great meaſure, diſcouraged any ſuch attempt.

The geographical deſcriptions we have of the country about Carthagena, the iſthmus of Darien, the Terra Firma, the countries of Peru and Chili, thoſe watered by the vaſt river of the Amazons, and, in a word, of the greateſt part of South America, are not only perfectly accurate, very methodical, and, in all reſpects, full, clear, and ſatisfactory; but alſo what we greatly wanted, and what we never had, at leaſt in any compariſon with what we now have, before this work appeared. Theſe are countries that, from the time of their diſcovery, have maintained the reputation of being as pleaſant, as fertile, and as valuable, as any upon the globe. But though we knew this in general, and, from the Spaniſh deſcriptions and hiſtories, were not altogether unacquainted with many particulars relating to them; yet, with reſpect to any diſtinct and preciſe delineation of their ſeveral provinces, their diviſions and ſubdiviſions, the diſtribution of mountains, rivers, plains, and other circumſtances, with their relations to each other, and comparative values in all reſpects, they were things not barely unknown, but ſuch as we could never expect to know, from the nature of the Spaniſh government, with

* Martin Folkes, Eſq. a gentleman not more conſpicuous from his extenſive knowledge, than amiable for the politeneſs of his manners, and reſpectable for his excellent private character.

any degree of certainty. But by the accident of theſe gentlemen going thither, with no other view than the improvement of knowledge, purſuing that view with the moſt lively zeal and aſſiduous application, and founding their reputation upon a plain and candid communication of all that knowledge which, with ſo much pains and labour, they had acquired, we have now as clear, conciſe, and correct a repreſentation of theſe extenſive regions as we can poſſibly deſire; ſuch a one, as will anſwer all the ends of information and inſtruction, enable us to diſcover the errors and partialities in former accounts, and prevent our being amuſed or miſled by any erroneous relations for the future, which are certainly circumſtances of very great conſequence.

The natural hiſtory of theſe countries will be likewiſe found in the following ſheets, in a manner no leſs perfect and pleaſing. Theſe gentlemen went about it in a proper method, and with the talents requiſite to the complete accompliſhment of their deſign. They ſaw things with their own eyes, they enquired carefully, but they took nothing on truſt: on the contrary, they diſcovered, and they have diſcloſed, many errors of an old ſtanding; exploded various common notions that were ill founded, and have left others in the ſtate in which they ought to be left, as things not thoroughly proved, or abſolutely diſproved; but which are reſerved for further examination. It is chiefly from the natural hiſtory that we collect the value and importance of any country, becauſe from thence we learn its produce of every kind. In theſe ſheets we find the greateſt care taken in this particular; all the riches of the mineral, vegetable, and animal kingdoms exhibited to our view, their places exactly aſſigned, their reſpective natures deſcribed, the methods of uſing, improving, and manufacturing them pointed out; and, excluſive of a multitude of vulgar errors expoſed, and miſtaken notions refuted, an infinity of new, curious, and important remarks are made, all tending to explain and illuſtrate the reſpective ſubjects. Of theſe many inſtances might be given; but that would be to anticipate the reader's pleaſure, and arrogate to ourſelves the merits of the authors we celebrate.

In reſpect to the civil hiſtory, the world in general was yet more in the dark than as to the natural; knowing much leſs of the inhabitants than of the commodities of theſe countries; and in this reſpect our authors have been as candid, as circumſtantial, and as copious, as in the other. They not only acquaint us with the diſtribution and diſpoſition of the Spaniſh governments; with the nature, extent, and ſubordination of thoſe who preſide in them; but have alſo given us a regular plan of their adminiſtration, and of the order and method in which juſtice is diſpenſed; and the civil policy maintained; the domeſtic œconomy of the Spaniards, their cuſtoms, manner of living, their way of treating the Indians, both ſubjects and ſavages, are ſtated with the ſame freedom and preciſion. In like manner they give us a ſuccinct account of the Creoles, that is, ſuch as are deſcended from the Spaniards, and have been longer or later ſettled in the Indies, with whatever is peculiar in reſpect to the genius, humour, virtues, and vices of theſe people; and more eſpecially the points in which they differ from the native Spaniards. The ſtate and condition of the Indians who live in ſubjection to the Spaniards, their tempers, employments, good and ill qualities, labours, and diverſions. The habitations of the free Indians, their cuſtoms, dreſs, manner of ſpending their lives, exerciſes, talents, religion, and method of preſerving the remembrance of paſt tranſactions, as alſo the condition of the negroes and mulattoes, whether in the capacity of ſlaves, domeſtic ſervants, or in poſſeſſion of their freedom, with whatever differences occur in the ſtate of any of theſe people in different provinces.

But to the Engliſh reader, perhaps, nothing in the following pages will be more acceptable, as indeed nothing ſeems to have been more carefully conſidered by the authors

than the commercial hiſtory of theſe countries. We find here not only the principal commodities of every province diſtinctly enumerated, but we are alſo informed of the particular places where they grow, their different qualities and degrees in value, the method of collecting and curing moſt part of them, the manufactures of cotton, wool, and other materials, the produce of their mines and different kinds of metal, their potteries, and whatever elſe is the object of induſtry and ſkill: the manner of conveying them from one province to another, the great roads, the inland and coaſting navigation, their commerce with Spain, their contraband trade, the manner of introducing, and the great conſumption, of European commodities and manufactures, the advantages and diſadvantages attending their preſent regulations, the diſcoveries that are yet to be made, and the improvements which may ſtill take place in the management of affairs in thoſe countries: the ſingular inventions of the natives for paſſing great rivers, tranſporting their goods by the help of veſſels of their own conſtruction, their adroitneſs in ſome reſpects, and their ſtupidity in others.—From the due conſideration of this part of the work, the reader will perceive that in many things we have been impoſed upon, in former accounts; and that other things, in a long courſe of years, are very much changed from what they were. But inſtead of old errors, we ſhall find many new truths, and ſome eſtabliſhed from example and experience, that are of too great conſequence not to be frequently remembered, and perfectly underſtood; ſuch as, that countries are not the better, and, which is ſtill ſtranger, are not the richer, for producing immenſe quantities of gold and ſilver, ſince this prevents their being cultivated, expoſes the natives to paſs their lives in the ſevereſt drudgery, and, after all, makes the digging of metal from the mine little more than drawing water in a ſieve; ſince, in ſuch countries, riches diſappear almoſt as ſoon as they are revealed. Induſtry alone, in the old world and in the new, has the power of acquiring and preſerving wealth, and this, too, without the trouble of mining. Beſides, though not inſiſted upon, it will be evidently ſeen, that ſeverity in government, and ſuperſtition in religion, ſubvert both liberty and morals, and are conſequently in all reſpects deſtructive of the happineſs of mankind.

The account given by our authors, of the miſſions which the Jeſuits have eſtabliſhed in Paraguay, is as intereſting as it is entertaining, and may be very juſtly conſidered as one of the moſt curious and beſt written parts of the whole performance; ſince, at the ſame time that it breathes all the deference and reſpect poſſible for the fathers, it informs us of a great variety of facts of ſo much the more conſequence, as, at the time it was written, nobody could foreſee that the courts of Madrid and Liſbon would make ſo thorough a change as they have done in their ſentiments in regard to this order; and therefore the informations theſe gentlemen give us are the more to be relied on. They ſhew us in what manner, and under what ſpecious pretences the Jeſuits acquired a kind of independent poſſeſſion of ſo large a tract of country, and, except their annual tribute, an almoſt abſolute dominion over an immenſe number of people. They acquaint us that there is a civil government in every village, after the model of the Spaniſh towns; but the magiſtrates are choſen by the people, ſubject only to the approbation of the father Jeſuit, who reſides in and, in reality, governs the village. We learn from them, that the Jeſuits draw from the people all the commodities and manufactures that are fit for foreign commerce, which are vended by a commiſſary of their appointing, and the returns in European commodities made to and diſtributed by them at their pleaſure; they tell us, that the church in every village is ſpacious, and elegantly adorned; that, though they are ſtyled villages, they are in effect large towns, and the houſes in them neat, commodious, and, in compariſon of the Spaniards', very well furniſhed. We learn from

from them that, under a pretence of the excurſions of the Portugueſe, who uſed to ſeize theſe Indians and make them work in their mines, and of the ſavage Indians who ſurrounded them in a manner on all ſides, the fathers have taught them the uſe of arms, make them ſpend their holidays in military exerciſes, have a large body of well-diſciplined troops, magazines well furniſhed with military ſtores, together with mills and other neceſſary machines for making their own gunpowder. They likewiſe let us know that, to prevent the manners of their diſciples from being corrupted, the Jeſuits exclude them entirely from all communication with ſtrangers, whether Europeans or Indians, and ſuffer none to enter into their miſſions, who may report either the ſtrength or the weakneſs of their condition, or penetrate into the myſteries of their policy.

PART I.

ACCOUNT OF CARTHAGENA, PANAMA, &c. AND OF THE PROVINCE OF QUITO.

BOOK I.

Reaſons for this Voyage; Navigation from the Bay of Cadiz to Carthagena in America, and a Deſcription of the latter.

CHAP. I. — *Motives of this Voyage to South America, with Remarks on the Navigation between Cadiz and Carthagena.*

THE heart of man is naturally inclined to attempt things, the advantages of which appear to increaſe in proportion to the difficulties which attend them. It ſpares no pains, it fears no danger in attaining them; and inſtead of being diverted from its purpoſe, is animated with freſh vigour by oppoſition. The glory inſeparable from arduous enterpriſes is a powerful incentive, which raiſes the mind above itſelf; the hope of advantages determines the will, diminiſhes dangers, alleviates hardſhips, and levels obſtacles, which otherwiſe would appear unſurmountable. Deſire and reſolution are not, however, always ſufficient to enſure ſucceſs; and the beſt-concerted meaſures are not always proſperous. Divine Providence, whoſe over-ruling and incomprehenſible determinations direct the courſe of human actions, ſeems to have preſcribed certain limits, beyond which all our attempts are vain. The cauſes his infinite wiſdom has thought proper to conceal from us, and the reſult of ſuch a conduct, is rather an object of our reverence than ſpeculation. The knowledge of the bounds of human underſtanding, a diſcreet amuſement and exerciſe of our talents for the demonſtration of truths which are only to be attained by a continual and extenſive ſtudy, which rewards the mind with tranquillity and pleaſure, are advantages worthy of our higheſt eſteem, and objects which cannot be too much recommended. In all times the deſire of enlightening others by ſome new diſcovery has rouſed the induſtry of man, and engaged him in laborious reſearches, and by that means proved the principal ſource of the improvement of the ſciences.

Things which have long baffled ſagacity and application, have ſometimes been diſcovered by chance. The firmeſt reſolution has often been diſcouraged by the inſuper-

able precipices which, in appearance, encircle his inveſtigation. The reaſon is, becauſe the obſtacles are painted, by the imagination, in the moſt lively colours; but the methods of ſurmounting them eſcape our attention; till, ſmoothed by labour and application, a more eaſy paſſage is diſcovered.

Among the diſcoveries mentioned in hiſtory, whether owing to accident or reflection, that of the Indies is not the leaſt advantageous. Theſe parts were for many ages unknown to the Europeans, or, at leaſt, the remembrance of them was buried in oblivion. They were loſt through a long ſucceſſion of time, and disfigured by the confuſion and darkneſs in which they were found immerſed. At length the happy æra arrived, when induſtry, aſſiſted by reſolution, was to remove all the difficulties exaggerated by ignorance. This is the epocha which diſtinguiſhed the reign, in many other reſpects ſo glorious, of Ferdinand of Arragon, and Iſabella of Caſtile. Reaſon and experience at once exploded all the ideas of miſhneſs and ridicule which had hitherto prevailed. It ſeems as if Providence permitted the refuſal of other nations to augment the glory of our own; and to reward the zeal of our ſovereigns, who countenanced this important enterpriſe; the prudence of their ſubjects in the conduct of it, and the religious end propoſed by both. I mentioned accident or reflection, being not yet convinced whether the confidence with which Chriſtopher Columbus maintained, that weſtward there were lands undiſcovered, was the reſult of his knowledge in coſmography and experience in navigation, or whether it was founded on the information of a pilot who had actually diſcovered them, having been driven on the coaſts by ſtreſs of weather; and who, in return for the kind reception he had met with at Columbus's houſe, delivered to him in his laſt moments the papers and charts relating to them.

The prodigious magnitude of this continent; the multitude and extent of its provinces; the variety of its climates, products, and curious particulars; and, laſtly, the diſtance and difficulty of one part communicating with another, and eſpecially with Europe, have been the cauſe, that America, though diſcovered and inhabited in its principal parts by Europeans, is but imperfectly known by them; and at the ſame time kept them totally ignorant of many things, which would greatly contribute to give a more perfect idea of ſo conſiderable a part of our globe. But though inveſtigations of this kind are worthy the attention of a great prince, and the ſtudies of the moſt piercing genius among his ſubjects, yet this was not the principal intention of our voyage. His Majeſty's wiſe reſolution of ſending us to this continent was principally owing to a more elevated and important deſign. The literary world are no ſtrangers to the celebrated queſtion that has lately produced ſo many treatiſes on the figure and magnitude of the earth which had hitherto been thought perfectly ſpherical. The prolixity of later obſervations had given riſe to two oppoſite opinions among philoſophers. Both ſuppoſed it to be elliptical; but one affirmed its tranſverſe diameter was that of the poles, and the other, that it was that of the equator. The ſolution of this problem, in which not only geography and coſmography are intereſted, but alſo navigation, aſtronomy, and other arts and ſciences of public utility, was what gave riſe to our expedition. Who would have imagined that theſe countries, lately diſcovered, would have proved the means of our attaining a perfect knowledge of the old world; and that, if the former owed its diſcovery to the latter, it would make it ample amends by determining its real figure, which had hitherto been unknown or uncontroverted? who, I ſay, would have ſuſpected that the ſciences ſhould in that country meet with treaſures not leſs valuable than the gold of its mines, which has ſo greatly enriched other countries? How many difficulties were to be ſurmounted in the execution! What a ſeries of obſtacles were to be overcome in ſuch long operations, flowing from the inclemency of the climates; the diſadvan-

diſadvantageous ſituation of the places where they were to be made, and in fine, from the very nature of the enterpriſe! All theſe circumſtances infinitely heighten the glory of the monarch, under whoſe auſpices the enterpriſe has been ſo happily accompliſhed. This diſcovery was reſerved for the preſent age, and for the two Spaniſh monarchs, the late Philip V. and Ferdinand VI. The former cauſed the enterpriſe to be carried into execution, the latter honoured it with his countenance, and ordered the narrative of it to be publiſhed; not only for the information and inſtruction of his own ſubjects, but alſo for thoſe of other nations, to whom theſe accounts will prove equally advantageous. And, that this narrative may be the more inſtructive, we ſhall introduce the particular circumſtances which originally gave occaſion to our voyage, and were in a manner the baſis and rule of the other enterpriſes, which will be meaſured in the ſequel, each in its proper order.

The attention of the Royal Academy of Sciences at Paris for the improvement of human knowledge, and its continual ardour to diſcover and apply the beſt methods for that noble end, could not ſit down contented under the uncertainty concerning the real figure and magnitude of the earth, the inveſtigation of which had, for ſeveral years paſt, employed the moſt eminent geniuſes of Europe. This learned aſſembly repreſented to their ſovereign the neceſſity of determining a point, the exact deciſion of which was of ſuch great moment, eſpecially to geography and navigation; and at the ſame time laid before him a method of doing it. This was, to meaſure ſome degree of the meridian near the equator; and (as was done with great propriety after our departure) by meaſuring other degrees under the polar circle, in order to form a judgment of the different parts of its circumference, by their equality or inequality, and from thence to determine its magnitude and figure. No country ſeemed ſo proper for this as the province of Quito in South America. The other countries under the equinoctial line, both in Aſia and Africa, were either inhabited by ſavages, or not of an extent ſufficient for theſe operations; ſo that, after the moſt mature reflection, that of Quito was judged to be the only place adapted to the plan in queſtion.

His moſt Chriſtian Majeſty Lewis XV. applied, by his miniſters, to King Philip, that ſome members of his Royal academy might paſs over to Quito, in order to make there the neceſſary obſervations; at the ſame time ſhewing the intention and univerſal advantage of them, and how very remote they were from any thing which tends to awaken a political jealouſy. His Majeſty, perſuaded of the candour of this application, and deſirous of concurring in ſo noble a deſign, as far as was conſiſtent with the dignity of his crown and the ſafety of his ſubjects, referred the matter to the council of the Indies; and, on their favourable report, the licence was granted, with all the neceſſary recommendations and aſſurances of the royal protection to the perſons who were to repair to America to make theſe obſervations. The patents, which were made out for them on the 14th and 20th of Auguſt 1734, contained the moſt preciſe orders to the viceroys, governors, &c. in the countries through which they were to paſs, to aid and aſſiſt them, to ſhew them all friendſhip and civility, and to ſee that no perſons exacted of them for their carriages or labour more than the current price; to which His Majeſty was pleaſed to add the higheſt proofs of his royal munificence, and of his zeal for the advancement of the ſciences, and eſteem for their profeſſors.

This general regard of His Majeſty was followed by ſome meaſures, particularly deſigned to promote the honour of the Spaniſh nation, and to give his own ſubjects a taſte for the ſame ſciences. He appointed two officers of his navy, well ſkilled in mathematics, to join in the obſervations which were to be made, in order to give them

them a great dignity and a more extenſive advantage; and that the Spaniards might owe only to themſelves the fruits and improvements expected from them. His Majeſty alſo conceived that the French academicians, having theſe officers in their company, would be more regarded by the natives, and, in the places through which they were to paſs, all umbrage would be thus removed from perſons who might not be ſufficiently acquainted with the nature of the deſign. Accordingly the commanders and directors of the academy of the Royal Guardas Marinas received orders to recommend two perſons, whoſe diſpoſitions not only promiſed a perfect harmony and correſpondence with the French academicians, but who were capable of making, equally with them, the experiments and operations that might be neceſſary in the courſe of the enterpriſe.

Don George Juan, commander of Aliaga, of the order of Malta, ſub-brigadier to the Guardas Marinas, equally diſtinguiſhed by his application to the mathematics, and his faithful ſervices to the crown, was, with myſelf, propoſed to His Majeſty, as qualified to contribute to the ſucceſs of ſuch an enterpriſe. We had commiſſions given us as lieutenants of men of war, and, with all neceſſary inſtructions, were ordered to embark on board two ſhips fitting out at Cadiz, for carrying to Carthagena, and thence to Porto Bello, the Marquis de Villa Garcia, appointed viceroy of Peru. About the ſame time, the French academicians were to ſail in a ſhip of their nation, and, by way of St. Domingo, to join us at Carthagena, in order to proceed from thence in company.

The two men of war, on board of which we had been ordered, were the Conquiſtador of ſixty-four guns, and the Incendio of fifty; the former commanded by Don Franciſco de Liano, of the order of Malta, commodore; and the latter by Don Auguſtin de Iturriaga, by whom it was agreed that Don George Juan ſhould go in the Conquiſtador, and myſelf in the Incendio. We ſailed from Cadiz bay, May 26, 1735; but, the wind ſhifting, we were obliged to put back and come to an anchor about half a league without Las Puercas.

On the 28th, the wind coming about to north-eaſt, we again ſet ſail, and continued our courſe in the manner related in the two following journals:

Journal of Don George Juan, on board the Conquiſtador.

THE 2d of June 1735, ſaw the Canary Iſlands; and the winds, which are uſually very variable in this paſſage, were either north-weſt by north, or north-eaſt. Don George Juan, by his reckoning, found the difference of longitude between Cadiz and the Pico of Teneriffe 10° 30′.

According to Father Feuillée's obſervations, made at Loratava, ſix minutes and a half eaſt of the Pico, the difference of the longitude betwixt the latter and the obſervatory at Paris is 18° 51′. Subtracting therefore 8° 27′, which, according to the Connoiſſance des Tems, is the difference of longitude between that obſervatory and Cadiz; the difference of longitude between that city and the Pico is 10° 24′, and conſequently differs ſix minutes from Don George's reckoning.

On the 7th we loſt ſight of the Canaries, and continued our courſe towards Martinico, ſteering ſouth between forty-two and forty-five degrees weſterly, encreaſing the angle every day, till near the iſland, we ſteered due weſt under its parallel, and on the 26th of June diſcovered Martinico and Dominica.

The difference of longitude between Cadiz and Martinico appeared from our reckoning to be 59° 55′, that is, 3° 55′ more than the chart of Antonio de Matos

makes it; which is however generally followed in this voyage. According to the obſervations of Father Laval, made at Martinico, the difference of longitude is 55° 8′ 45″; according to thoſe of Father Feuillée, 55° 19′. This error in a great meaſure proceeds from a want of accuracy in the log-line; for had the pilot of the Conquiſtador, who found the ſame defect in his calculations, made the diſtance between the knots of the log-line thirty Engliſh feet, inſtead of forty-ſeven and a half, the difference of longitude, by account, would have been only fifty-ſeven degrees. This error in marking the log-line is common both to the pilots of Spain and other nations; and this, like many other faults in navigation, remains uncorrected for want of attention.

The diſtance between the knots on the log-line ſhould contain $\frac{1}{120}$ of a mile, ſuppoſing the glaſs to run exactly half a minute: and though all agree in this reſpect, yet not in the true length of the mile, which ought to be determined by the moſt exact menſurations; as thoſe of M. Caſſini in France, ours in the province of Quito, or thoſe of M. Maupertuis in Lapland. If the length of the degree be computed according to M. Caſſini's meaſures, 57,060 toiſes, a minute or geographical mile will contain 951 toiſes, or 5,706 royal feet, of which $\frac{1}{120}$ is nearly equal to forty-ſeven feet ſix inches and a half; and as the Paris foot is to that of London as 16 to 15*; this, when reduced to Engliſh meaſure, makes nearly fifty feet eight inches and a quarter. And this is the true diſtance between each knot on the log-line.

This menſuration, which ſhould have been hitherto the rule obſerved, is not exact, when compared to that which has been found from inveſtigating the figure of the earth, which is diſcovered to be very different from what it has been imagined; ſo that it is not ſurpriſing that there ſhould be found conſiderable differences in the nautical calculations.

The Author's Journal, on board the Incendio.

HAVING ſet ſail on the ſame day, namely, the 28th of May 1735, and ſteered ſouth, between fifty-two and fifty-ſix degrees weſterly, we perceived on June 2d, about ſix in the evening, the iſland of Savages, one of the Canaries; and on the 3d we ſaw Teneriffe. I found the difference of longitude between Cadiz and Naga-Point to be 11° 6′, which agrees with the Engliſh and Dutch charts, but differs a little from the true longitude determined by Father Feuillée at Loratava, in the ſame iſland of Teneriffe.

On the 4th, we had ſight of the iſlands of Palma, Gomera, and Fer; but again loſt ſight of them on the fifth. On the 29th about noon, we made Martinico, and continuing our courſe, paſſed between that iſland and Dominica. The difference of longitude between Martinico and Cadiz bay, according to my reckoning, was 57° 5′, one degree more than San Telmo's chart makes it. But it is proper to obſerve, that in order to eſtimate my courſe, and avoid the danger of finding a great difference at making land, I followed two different calculations, one according to the meaſures commonly given by pilots to the diſtance between the knots on the log-line, of forty-ſeven Engliſh feet and a half, and the other by reducing them to forty-ſeven

* According to the late regulation of the Royal Society of London, and the meaſures ſent by it to the Academy of Sciences at Paris, and with which I was favoured by Martin Folkes, Eſq. the worthy preſident of that ſociety, the Paris foot is to that of London as 864 to 811, which ſhews how erroneous theſe are publiſhed by Father Toſca †.

† The Paris foot is divided into twelve inches, and each inch into twelve lines; wherefore, if we ſuppoſe each line to be divided in 810 parts, the Paris foot will be 1440 parts, the London, 1350.

Theſe proportions were ſettled by the Royal Academy of Sciences at Paris, in their treatiſe of the figure and magnitude of the earth, Part xi. Chap. 5, which ſhews the erroneouſneſs of the above. A.

royal

royal feet: for though in ſtrictneſs, it ought to have been forty-ſeven and a half of the latter, the difference being but ſmall, I thought it beſt to omit the half foot, that my reckoning might be before the ſhip. According to the firſt method, the difference of longitude between Cadiz and this iſland was between ſixty and ſixty-one degrees, which nearly agrees with the journal of Don George.

From Martinico we continued our courſe towards Curaſao, which we had ſight of July 3d. The difference of meridians between that and Martinico, Don George Juan found to be 6° 49′, whereas I made it 7° 56′. The cauſe of this diſagreement was, that finding a ſenſible difference in the latitudes, I regulated myſelf by the currents, imagining, according to the opinion of all our navigators, that they ſet to the north-weſt; which Don George did not, and by that means his reckoning anſwered to the real diſtance betwixt theſe two iſlands, and mine was erroneous. But that the water was in motion, is not to be queſtioned: for in all the latitudes from June 30th, to July 3d, thoſe found by obſervation exceeded thoſe by account ten minutes thirteen ſeconds, and even fifteen minutes; a ſufficient proof that the currents run directly north and not north-weſt.

From the 2d, at ſix in the morning, till the day we made Curaſao and Uruba, we had ſhallow water, of a greeniſh colour, which continued till about half paſt ſeven in the evening, when we entered the gulf.

Our courſe from Martinico to Curaſao, during the two firſt days, was ſouth eighty-one weſterly; and the two laſt ſouth ſixty-four degrees weſterly. From thence to Carthagena we kept at a proper diſtance from the coaſt, ſo as to diſtinguiſh its moſt noted capes, and inhabited places.

On the 5th we diſcovered the mountains of St. Martha, ſo well known for their height, and being all covered with ſnow; and at ſix in the morning we croſſed at the current of thick water, which iſſues with prodigious rapidity from the river De la Magdalena, and extends ſeveral leagues into the ſea. About ſix in the evening found ourſelves to the northward of Cape de Canoa, where we lay to, and continued till ſeven in the morning, when we ſet all our ſails, which at eight in the evening brought us under fort Boca Chica, where we came to an anchor in thirty-four fathom water, the bottom muddy. On the 8th we endeavoured to get into Carthagena bay, but could not before the 9th ſecurely moor our ſhip.

During our paſſage betwixt the Canary iſlands, we had faint and variable winds, with ſome ſhort calms; but, after we had loſt ſight of them, the gales encreaſed upon us, but moderate, and continued in this manner till we arrived within one hundred and ſeventy or one hundred and eighty leagues of Martinico, when we had ſqualls accompanied with violent rains. After paſſing the Canaries, at about twenty leagues from theſe iſlands, we had the wind at north-weſt, and at the diſtance of near eighty leagues it ſhifted to eaſt and eaſt-north-eaſt. We had nearly the ſame in the middle of the Atlantic ocean, and afterwards the wind came about to the eaſt, with different degrees of velocity; but the variation was not ſuch as to occaſion any inconveniency.

Theſe are the winds generally met with in this voyage. Sometimes it veers away to the weſt and weſt-north-weſt, though it is very ſeldom known to continue on theſe points. Sometimes long calms intervene, which lengthen the voyage beyond the uſual time. All this depends on the ſeaſons; and according to the time of the voyage, the weather and winds are more or leſs favourable. The winds above-mentioned are the moſt general; and the beſt time for making uſe of them, as they then are ſettled, is when the ſun approaches near the equator in his return from the tropic of

Capricorn: for his approach to the autumnal equinox is the time when the calms moſt prevail.

From the iſlands of Martinico and Dominica to that of Curaſao and the coaſt of Carthagena, the winds continued the ſame as in the ocean, though more variable, and the weather leſs fair. I have ſaid that about one hundred and ſeventy leagues before we reached Martinico the winds were interrupted by ſqualls; and theſe are more common beyond thoſe iſlands, and are immediately ſucceeded by ſhort calms; after which the wind freſhens again for half an hour, an hour, two hours, and ſometimes longer. From what quarter theſe tornadoes or ſqualls proceed, I cannot poſitively affirm; but it is certain, that when they are over, the wind begins to blow from the ſame point as before, and nearly with the ſame force. And here it may be of uſe to obſerve, that on any appearance of theſe ſqualls in the atmoſphere, the utmoſt expedition muſt be uſed in getting the ſhip in readineſs, their impetuoſity being ſo ſudden as to admit of no time for preparatives; and therefore the leaſt negligence may be attended with the moſt fatal conſequences.

In the voyage from Cadiz to the Canaries, in ſome parts, though the winds are otherwiſe moderate, the ſea is agitated by thoſe from the north and north-weſt ſometimes in large and long waves; ſometimes in ſmall but more frequent ones, which happens when the wind blows ſtrongly along the coaſt of France and Spain; for in the ocean the winds are ſo mild, that the motion of the ſhip is hardly perceived, which renders the paſſage extremely quiet and agreeable. Within the windward iſlands, and even before we reach them, in the parts where theſe terrible ſqualls prevail, the ſea is agitated in proportion to their violence and duration; but no ſooner is the wind abated, than the water becomes again clear and ſmooth.

The atmoſphere of the ocean anſwers to the calmneſs of the winds and ſea, ſo that it is very ſeldom an obſervation cannot be taken, either from the ſun's being obſcured, or the hazineſs of the horizon. This is to be underſtood of the fair ſeaſon; for otherwiſe here are dark days, when the air is filled with vapours, and the horizon very hazy. At all times it is ſeen filled with white and towering clouds, embelliſhing the ſky with a variety of figures and ramifications, which amuſe the eye, tired with being ſo long confined to two ſuch ſimilar objects as the ſea and ſky. Within the windward iſlands the variety is ſtill greater, the quantity of vapours profuſely exhaled, filling it in ſuch a manner, that ſometimes nothing but clouds are to be ſeen, though part of theſe are gradually diſperſed by the heat of the ſun, ſo that ſome parts are quite clear, others obſcure; but a general darkneſs during the whole day is never known.

It is well known and allowed, that through the whole extent of the ocean, not the leaſt current is perceiveable, till we arrive within the iſlands, where in ſome parts they are ſo ſtrong and irregular, that without the greateſt vigilance and precaution, a ſhip will be in great danger among this archipelago. This ſubject, together with the winds peculiar to this coaſt, ſhall hereafter be conſidered more at large.

In the track to Martinico and Dominica there is a ſpace where the water, by its white colour, viſibly diſtinguiſhes itſelf from the reſt of the ocean. Don George, by his eſtimate, found this ſpace to terminate one hundred leagues from Martinico; whereas, according to my reckoning, it reached only to within one hundred and eight leagues; it may therefore, at a medium, be placed at one hundred and four. This ſmall difference doubtleſs proceeds from the difficulty of diſcovering where this whitiſh colour of the water terminates, towards Martinico. It begins at about one hundred and forty leagues from that iſland, which muſt be underſtood of the place where the different colours of the water are evident; for if we reckon from where it begins to be juſt diſ-

ſcernible,

cernible, the diſtance is not leſs than one hundred and eighty leagues. This track of water is a certain mark for directing one's courſe; becauſe, after leaving it, we have the ſatisfaction of knowing the remaining diſtance; it is not deleniated on any map, except the new one lately publiſhed in France; though it would doubtleſs be of great uſe in them all.

Nothing farther remains, than to give an account of the variation of the needle in different parts in which we found the ſhip by her latitude and longitude; a point of the utmoſt conſequence in navigation, not only with regard to the general advantage to mariners in knowing the number of degrees intercepted bebetween the magnetic and true north of the world, but alſo as, by repeated obſervations of this kind, the longitude may be found, and we may know within a degree, or a degree and a half, the real place of the ſhip; and this is the neareſt approximation to which this has been carried by thoſe who revived it at the beginning of this century. Among theſe the chief was that celebrated Engliſhman, Dr. Edmund Halley: in emulation of whom, many others of the ſame nation, as alſo ſeveral Frenchmen, applied themſelves to the improvement of it. We already enjoy the fruits of their labours in the variation charts lately publiſhed, though they are principally uſeful only in long voyages; where the difference of two or of even three degrees is not accounted a conſiderable error, when there is a certainty that it cannot exceed that number. This ſyſtem, though new with reward to the uſe it is now applied to, is far from being ſo among the Spaniards and Portugueſe, very plain veſtiges of it remaining in their old treatiſes of navigation. Maniel de Figueyredo, coſmographer to the King of Portugal, in his Hydrographia, or *Examin de Pilotos*, printed at Liſbon in 1608, chap. ix. and x. propoſes a method for finding, from the variation of the needle, the diſtance run in ſailing eaſt and weſt. And Don Lazaro de Flores, in his *Arte de Navegar*, printed in 1672, chap. i. part ii. quotes this author, as an authority to confirm the ſame remark made by himſelf; adding (chap. ix.) that the Portugueſe, in all their regulations concerning navigation, recommend it as a certain method. It muſt, however, be acknowledged, that thoſe ancient writers have not handled this point with the penetration and accuracy of the Engliſh and French, aſſiſted by a greater number of more recent obſervations. And that the obſervations made in this voyage may be of the moſt general uſe, I ſhall inſert them in the two following tables; previouſly informing the reader, that the longitudes correſponding with each are true, the error of the courſe, with regard to the difference of meridians, being corrected from the obſervations of the fathers Laval and Feuillée:—

Variations obſerved by Don George Juan, the Longitude being reckoned weſt from Cadiz.

Deg. of Lat.	Deg. of Long.	Variation obſerved.	Variation by the Chart.	Difference.
27 30	11 00	8 00W.	9 00W.	1 00
25 30	14 30	6 20	7 20	1 00
24 00	17 00	4 30	6 00	1 30
23 20	18 30	3 30	5 00	1 00
22 30	20 00	2 30	4 30	2 00
21 50	22 00	1 30	4 00	2 30
21 35	26 00	0 30	3 00	2 30
16 20	43 00	4 00E.	2 30E.	2 00
15 40	45 00	5 00	3 20	1 40
Off Martinico		6 00	5 00	1 00

Variations

Variations obſerved by the Author, the Longitude being reckoned from the former Meridian.

Deg. of Lat.	Deg. of Long.	Variation obſerved.	Variation by the Chart.	Difference.
36 20	00 25	9 30W.	13 00W.	3 30
31 23	08 22	7 00	10 30	3 30
30 11	10 21	6 00	9 30	3 30
26 57	14 54	4 00	7 00	3 00
25 52	15 59	3 40	6 30	2 50
16 28	43 46	0 30E.	2 00E.	1 30
15 20	47 32	2 30	4 00	1 30
Off Cape de la Vela		6 00	7 30	1 30

To the above obſervations on the variation of the needle, compared with thoſe on the variation chart, firſt publiſhed by the great Dr. Halley in 1700, and corrected in 1744, from other obſervations and journals by Meſſrs. Montaine and Dodſon of London, I ſhall add ſome reflections, in order to expoſe the negligence in conſtructing the magnetic needles. 1. It appears that the variations obſerved by Don George Juan do not agree with mine, which is not to be attributed to a defect in the obſervations. This is ſufficiently evident from comparing them. The differences between thoſe obſerved by Don George and thoſe on the chart, are nearly every where uniform; the moſt conſiderable being a degree and fifty minutes; one making the variation 2° 30′, and the other a degree only. This probably aroſe from the motion of the ſhip, which hinders the needle from being entirely at reſt; or from the diſk of the ſun, by reaſon of intervening vapours, not being accurately determined, or ſome other unavoidable accident; the error, when the difference is leſs than a degree, being ſcarcely perceivable in theſe obſervations. Thus, on a medium, the rational concluſion is, that the needle uſed in theſe obſervations varied a degree and forty minutes leſs than thoſe when the map was conſtructed.

The ſame uniformity appears in the differences between my obſervations and the chart; but it muſt be obſerved, that having uſed two different needles, the particulars of each nearly correſpond, ſo that between the five firſt, the greateſt difference is of forty minutes, which intervene between the ſmalleſt difference of 2° 50′, and the greateſt of 3° 30′. Hence, taking the medium between both, the difference between my obſervations and the chart will be 3° 16′, the latter being ſo much leſs than the former. The three laſt do not want this operation, the difference of 1° 30′ being equal in all, and the variations reſulting from theſe obſervations are alſo leſs than thoſe delineated on the map; the variation having paſſed to a different ſpecies; namely, from north-weſt to north-eaſt. This demonſtrates, that the firſt needle I made uſe of, whether it had been ill touched, or the ſteel not accurately placed, varied 1° 30′ weſterly leſs than that uſed by Don George Juan; and as this officer continued his obſervations to the end of the voyage with the ſame needle, the difference, which at firſt was negative, on the variation changing its denomination became poſitive; and from my changing inſtruments, the difference on my ſide continued always negative. The reaſon of this is, that the difference of the five firſt obſervations proceeded leſs from a real difference in the variation, than from the poles of the needle, which was ſo far from anſwering exactly with the meridian-line on the compaſs-card, that it inclined towards the north-weſt; the contrary happened in the ſecond compaſs made uſe of, its inclination being towards the north-eaſt; conſequently, whatever the angle of that inclination was, it occaſioned a proportionate diminution in the variation of a contrary ſpecies.

Theſe

Theſe obſervations, thus compared, ſhew the errors to which navigators are liable, for want of attention in making choice of proper needles, which they ſhould be careful to procure, not only well made and exact, but alſo ſtrictly tried with regard to their inclination to the true meridian, before they venture to depend upon them in any voyage. In this point, Spain is guilty of a notorious neglect, notwithſtanding it is evidently the ſource of a thouſand dangerous errors; for a pilot, in correcting the courſe he has ſteered, in making uſe of a compaſs whoſe variation is different from the true, will conſequently find a difference between the latitude by account and the latitude obſerved; and to make the neceſſary equation according to the rules commonly received in ſailing on points near the meridian, he muſt either increaſe or diminiſh the diſtance, till it agrees with the latitude, whereas in this caſe the principal error proceeded from the rhomb. The ſame thing happens in parts where it is apprehended there may be currents; which often occur in ſailing when the latitude by account, and that by obſervation, diſagree; though in reality the water has no motion, the difference proceeding entirely from making uſe of another variation in the courſe, than that of the needle by which the ſhip is ſteered; as was the caſe with me in ſailing from Martinico to Curaſao, and likewiſe of all the artiſts on board the ſhip. Another error incident to navigators, though not ſo much their own, is to ſteer the ſhip by one needle, and obſerve the variation by another; for though they have been compared, and their differences carefully obſerved, their motions being unequal, though at the beginning of the voyage the difference was only a certain number of degrees, the continual friction of the former on the pivot, renders the point of the needle, on which it is ſuſpended, more dull than the other, which is only hung when they make obſervations, being at all other times kept with the greateſt care; and hence proceeds the change obſervable in their differences. In order to remedy this evil, all needles intended to be uſed at ſea ſhould be equally proper for obſerving the variation; and the obſervation made with thoſe before placed in the bittacle; and, to improve the charts of variation, ſhould be touched in the ſame manner, and adjuſted to the meridian of place, where the exact variation is known. Thus obſervations made in the ſame places by different ſhips, would not be found ſo conſiderably to vary; unleſs the interval of time between two obſervations be ſuch as to render ſenſible that difference in the variation, which has been obſerved for many years paſt, and is allowed of by all nations.

Theſe are the cauſes of the manifeſt difference between needles; there may be others, but this is not the proper place for enumerating them.

CHAP. II. — *Deſcription of Carthagena.*

ON the 9th of July 1735, we landed, and Don George Juan and myſelf immediately waited on the governor of the place. We were informed that the French academicians were not yet arrived, nor was there any advice of them. Upon this information, and being by our inſtructions obliged to wait for them, we agreed to make the beſt uſe of our time; but were unhappily deſtitute of inſtruments, thoſe ordered by His Majeſty from Paris and London not being finiſhed when we left Cadiz, but were forwarded to us at Quito ſoon after our arrival. We, however, fortunately heard that there were ſome in the city, formerly belonging to Brigadier Don Juan de Herrera, engineer of Carthagena; by theſe we were enabled to make obſervations on the latitude, longitude, and variation of the needle. We alſo drew plans of the place and the bay from thoſe of this engineer, with the neceſſary additions and alterations.

In theſe operations we employed ourſelves till the middle of November 1735, impatient at the delay of the French academicians. At length, on the 15th, a French armed veſſel came to an anchor, during the night, under Boca Chica; and to our great ſatisfaction we learned, that the long-expected gentlemen were on board. On the 16th we viſited them, and were received with all imaginable politeneſs by M. de Ricour, captain of a man of war, and king's lieutenant of Guarico, in the iſland of St. Domingo; and Meſſrs. Godin, Bouguer, and De la Condamine, academicians, who were accompanied by Meſſrs. Juſſieu, botaniſt; Seniergues, ſurgeon; Verguin, Couplet, and Deſſordonais, aſſociates; Morenvile, draughtſman; and Hugot, clock-maker.

Our intention being to go to the equator with all poſſible expedition, nothing remained but to fix on the moſt convenient and expeditious route to Quito. Having agreed to go by the way of Porto Bello, Panama, and Guayaquil, we prepared to ſail; in the meantime, by help of the inſtruments brought by the academicians, we repeated our obſervations on the latitude, weight of the air, and the variation of the needle; the reſult of which will appear in the following deſcription:—

The city of Carthagena ſtands in 10° 25′ 48½″ north latitude; and in the longitude of 282° 28′ 36″ from the meridian of Paris; and 301° 19′ 36″ from the meridian of Pico Teneriffe; as appeared from our obſervations. The variation of the needle we alſo, from ſeveral obſervations, found to be eight degrees eaſterly.

The bay, and the country, before called Calamari, were diſcovered in 1502 by Roderigo de Baſtidas; and in 1504, Juan de la Coſa and Chriſtopher Guerra began the war againſt the Indian inhabitants, from whom they met with greater reſiſtance than they expected; thoſe Indians being a martial people, and valour ſo natural to them, that even the women voluntarily ſhared in the fatigues and dangers of the war. Their uſual arms were arrows, which they poiſoned with the juice of certain herbs; whence the ſlighteſt wounds were mortal. Theſe were ſucceeded by Alonſo de Ojeda, who ſome years after landed in the country, attended by the ſame Juan de la Coſa, his chief pilot, and Americo Veſpucio, a celebrated geographer of thoſe times; but made no greater progreſs than the others, though he had ſeveral encounters with the Indians. Nor was Gregorio Hernandez de Oviedo more fortunate. But, at length, the conqueſt of the Indians was accompliſhed by Don Pedro de Heredia, who, after gaining ſeveral victories over them, peopled the city in 1533, under the title of a government.

The advantageous ſituation of Carthagena, the extent and ſecurity of its bay, and the great ſhare it attained of the commerce of that ſouthern continent, ſoon cauſed it to be erected into an epiſcopal ſee. The ſame circumſtances contributed to its preſervation and increaſe, as the moſt eſteemed ſettlement and ſtaple of the Spaniards; but at the ſame time they drew on it the hoſtilities of foreigners, who, thirſting after its riches, or induced by the importance of the place, have ſeveral times invaded, taken, and plundered it.

The firſt invaſion was made ſoon after its eſtabliſhment in 1544, by certain French adventurers, conducted by a Corſican pilot, who, having ſpent ſome time there, gave them an account of its ſituation, and the avenues leading to it, with every other particular neceſſary to the ſucceſsful conduct of their enterpriſe; which they accordingly effected. The ſecond invader was Francis Drake, termed the deſtroyer of the new conqueſts, who, after giving it up to pillage, ſet it on fire, and laid half the place in aſhes; and its fatal deſtruction was only prevented by a ranſom of a hundred and twenty thouſand ſilver ducats paid him by the neighbouring colonies.

It was invaded a third time in 1597, by the French, commanded by M. de Pointis, who came before the place with a large armament, conſiſting partly of Flibuſtiers, little

better than pirates: but, as ſubjects to the King of France, were protected by that monarch. After obliging the fort of Boca Chica to ſurrender, whereby the entrance of the bay was laid open, he landed his men, and beſieged Fort Lazaro, which was followed by the ſurrender of the city. But the capitulation was no ſecurity againſt the rage of avarice, which had conſigned it to pillage.

This eaſy conqueſt has by ſome been attributed to a private correſpondence between the governor and Pointis; and what increaſes the ſuſpicion is, that he embarked on board the French ſquadron at its departure, together with all his treaſures and effects, none of which had ſhared in the general calamity.

The city is ſituated on a ſandy iſland, which forming a narrow paſſage on the ſouth-weſt opens a communication with that part called Tierra Bomba, as far as Boca Chica. The neck of land which now joins them, was formerly the entrance of the bay; but it having been cloſed up by orders from Madrid, Boca Chica became the only entrance; and this alſo has been filled up ſince the attempt of the Engliſh in 1741, who, having made themſelves maſters of the forts which defended it, entered the bay with an intent of taking the city; but they miſcarried in their attempt, and retired with conſiderable loſs. This event cauſed orders to be diſpatched for opening the old entrance, by which all ſhips now enter the bay. On the north ſide the land is ſo narrow, that, before the wall was begun, the diſtance from ſea to ſea was only thirty-five toiſes; but afterwards enlarging, forms another iſland on this ſide, and the whole city is, excepting theſe two places, which are very narrow, entirely ſurrounded by the ſea. Eaſtward it communicates, by means of a wooden bridge, with a large ſuburb called Xexemani, built on another iſland, which has alſo a communication with the continent by means of another wooden bridge. The fortifications, both of the city and ſuburb, are conſtructed in the modern manner, and lined with free-ſtone. The garriſon, in times of peace, conſiſts of ten companies of regulars, each containing, officers included, ſeventy-ſeven men; beſides ſeveral companies of militia.

In the ſide of Xexemani, at a ſmall diſtance from that ſuburb, on a hill, is a fort called St. Lazaro, commanding both the city and ſuburb. The height of the hill is between twenty and twenty-one toiſes, having been geometrically meaſured. It is joined to ſeveral higher hills, which run in an eaſtern direction. Theſe terminate in another hill of conſiderable height, being eighty-four toiſes, called Monte de la Popa, and on the top of it is a convent of bare-footed Auguſtines, called Nueſtra Senora de la Popa. Here is an enchanting proſpect, extending over the country and coaſt to an immenſe diſtance.

The city and ſuburbs are well laid out, the ſtreets being ſtraight, broad, uniform, and well paved. The houſes are built of ſtone, except a few of brick; but conſiſt chiefly of only one ſtory above the ground-floor; the apartments well contrived. All the houſes have balconies and lattices of wood, as more durable in this climate than iron, the latter being ſoon corroded and deſtroyed by the moiſture and acrimonious quality of the nitrous air; from whence, and the ſmoky colour of the walls, the outſide of the buildings makes but an indifferent appearance.

The churches and convents of this city are the cathedral, that of the Trinity in the ſuburbs, built by biſhop Don Gregory de Molleda, who alſo in 1734 founded a chapel of eaſe dedicated to St. Toribio. The orders which have convents at Carthagena, are thoſe of St. Francis, in the ſuburbs, St. Dominic, St. Auguſtin, La Merced, alſo the Jacobins, and Recollets; a college of Jeſuits, and an hoſpital of San Juan de Dios. The nunneries are thoſe of St. Clara and St. Tereſa. All the churches and convents are of a proper architecture, and ſufficiently capacious; but there appears ſomething of poverty

in the ornaments, ſome of them wanting what even decency requires. The communities, particularly that of St. Francis, are pretty numerous, and conſiſt of Europeans, white Creoles, and native Indians.

Carthagena, together with its ſuburbs, is equal to a city of the third rank in Europe. It is well peopled, though moſt of its inhabitants are deſcended from the Indian tribes. It is not the moſt opulent in this country, for, beſides the pillages it has ſuffered, no mines are worked here; ſo that moſt of the money ſeen in it is ſent from Santa Fe and Quito, to pay the ſalaries of the governor and other civil and military officers, and the wages of the garriſon; and even this makes no long ſtay here. It is not, however, unfrequent, to find perſons who have acquired handſome fortunes by commerce, whoſe houſes are ſplendidly furniſhed, and who live in every reſpect agreeable to their wealth. The governor reſides in the city, which, till 1739, was independent of the military government. In civil affairs, an appeal lies to the audience of Santa Fe; and a viceroy of Santa Fe being that year created, under the title of viceroy of New Granada, the government of Carthagena became ſubject to him alſo in military affairs. The firſt who filled this viceroyalty was lieutenant-general Don Sebaſtian de Eſlava; who defended Carthagena againſt the powerful invaſion of the Engliſh in 1741.

Carthagena has alſo a biſhop, whoſe ſpiritual juriſdiction is of the ſame extent as the military and civil government. The eccleſiaſtical chapter is compoſed of the biſhop and prebends. There is alſo a court of inquiſition, whoſe power reaches to the three provinces of Iſla Eſpanola (where it was firſt ſettled), Terra Firma, and Santa Fe.

Beſides theſe tribunals, the police and adminiſtration of juſtice in the city is under a ſecular magiſtracy, conſiſting of regidores, from whom every year are choſen two alcaldes, who are generally perſons of the higheſt eſteem and diſtinction. There is alſo an office of revenue, under an accountant and treaſurer: here all taxes and monies belonging to the King are received; and the proper iſſues directed. A perſon of the law, with the title of *auditor de la gente de guerra*, determines proceſſes.

The juriſdiction of the government of Carthagena reaches eaſtward to the great river De la Magdalena, and along it ſouthward, till, winding away, it borders on the province of Antioquia; from thence it ſtretches weſtward to the river of Darien; and from thence northward to the ocean, all along the coaſts between the mouths of theſe two rivers. The extent of this government, from eaſt to weſt, is generally computed at fifty-three leagues; and from ſouth to north, eighty-five. In this ſpace are ſeveral fruitful vallies, called by the natives Savannas; as thoſe of Zamba, Zenu, Tolu, Mompox, Baranca, and others; and in them many ſettlements large and ſmall, of Europeans, Spaniſh Creoles, and Indians. There is a tradition, that all theſe countries, together with that of Carthagena, whilſt they continued in their native idolatry, abounded in gold; and ſome veſtiges of the old mines of that metal are ſtill to be ſeen in the neighbourhoods of Simiti San Lucas, and Guamaco; but they are now neglected, being as imagined, exhauſted. But what equally contributed to the richneſs of this country, was the trade it carried on with Choco and Darien; from whence they brought in exchange for this metal, the ſeveral manufactures and works of art they ſtood in need of. Gold was the moſt common ornament of the Indians, both for men and women.

CHAP. III. — *Deſcription of Carthagena Bay.*

CARTHAGENA bay is one of the beſt, not only on the coaſt, but alſo in all the known parts of this country. It extends two leagues and a half from north to ſouth; has

has a ſufficient depth of water and good anchorage; and ſo ſmooth, that the ſhips are no more agitated than on a river. The many ſhallows, indeed, at the entrance, on ſome of which there is ſo little water that even ſmall veſſels ſtrike, render a careful ſteerage neceſſary. But this danger may be avoided, as it generally is, by taking on board a pilot; and for further ſecurity, His Majeſty maintains one of ſufficient experience, part of whoſe employment is to fix marks on the dangerous places.

The entrance to the bay, as I have already obſerved, was through the narrow ſtrait called Boca Chica, a name very properly adapted to its narrowneſs, ſignifying, in Spaniſh, Little Mouth, admitting only one ſhip at a time, and even ſhe muſt be obliged to keep cloſe to the ſhore. This entrance was defended on the eaſt by a fort called Saint Lewis de Boca Chica, at the extremity of Tierra Bomba, and by Fort St. Joſeph on the oppoſite ſide in the Iſle of Baru. The former, after ſuſtaining, in the laſt ſiege by the Engliſh, a vigorous attack both by ſea and land, and a cannonading of eleven days, its defences ruined, its parapets beat down, and all its artillery diſmounted, was relinquiſhed. The enemy being thus maſters of it, cleared the entrance, and, with their whole ſquadron and armaments, moved to the bottom of the bay. But, by the diligence and induſtry of our people, they found all the artillery of fort Santa Cruz nailed up. This fort was alſo, from its largeneſs, called Caſtillo Grande, and commanded all the ſhips which anchor in the bay. This, together with that of Boca Chica, St. Joſeph, and two others, which defended the bay, called Manzanillo and Paſtelillo, the enemy, enraged at their diſappointment, demoliſhed when they quitted the bay. The promiſing beginning of this invaſion, as I have already obſerved, gave occaſion to the ſhutting up and rendering impracticable the entrance of Boca Chica, and of opening and fortifying the former ſtrait; ſo that an enemy would now find it much more difficult to force a paſſage.

The tides in this bay are very irregular, and the ſame may nearly be ſaid of the whole coaſt. It is often ſeen to flow a whole day, and afterwards ebbs away in four or five hours; yet the greateſt alteration obſerved in its depth is two feet, or two feet and a half. Sometimes it is even leſs ſenſible, and only to be perceived by the current or flow of the water. This circumſtance increaſes the danger of ſtriking, though a ſerenity continually reigns there. The bottom alſo being compoſed of a gravelly ooze, whenever a ſhip is aground, it often happens that ſhe muſt be lightened before ſhe can be made to float.

Towards Boca Chica, and two leagues and a half diſtant from it ſeawards, there is a ſhoal of gravel and coarſe ſand, on many parts of which there is not above a foot and a half of water. In 1735, the Conquiſtador man of war, bound from Carthagena to Porto Bello, ſtruck on this ſhoal, and owed her ſafety entirely to a very extraordinary calm. Some pretended to ſay that the ſhoal was before known by the name of Salmedina; but the artiſts on board affirmed the contrary, and that the ſhoal on which ſhe ſtruck had never been heard of before. From the obſervations of the pilots and others, Nueſtra Senora de la Popa bore eaſt-north-eaſt two degrees north, diſtance two leagues; the caſtle of St. Lewis de Boca Chica, eaſt-ſouth-eaſt, diſtance three leagues and a half, and the north part of Iſla Voſaria, ſouth one quarter weſterly. It muſt, however, be remembered, that theſe obſervations were made on the apparent rhombs of the needle.

The bay abounds with great variety of fiſh both wholeſome and agreeable to the palate; the moſt common are the ſhad, the taſte of which is not indeed the moſt delicate. The turtles are large and well taſted. But it is greatly infeſted with ſharks, which are extremely dangerous to ſeamen, as they immediately ſeize every perſon they

diſcover in the water, and ſometimes even venture to attack them in their boats. It is a common diverſion for the crews of thoſe ſhips who ſtay any time in the bay, to fiſh for theſe rapacious monſters, with large hooks faſtened to a chain; though, when they have caught one, there is no eating it, the fleſh being as it were a kind of liquid fat. Some of them have been ſeen with four rows of teeth; the younger have generally but two. The voracity of this fiſh is ſo prodigious, that it ſwallows all the filth either thrown out of ſhips, or caſt up by the ſea. I myſelf ſaw in the ſtomach of one the entire body of a dog, the ſofter parts only having been digeſted. The natives affirm that they have alſo ſeen alligators; but this being a freſh-water animal, if any were ever ſeen in the ſea, it muſt be ſomething very extraordinary.

In the bay the galleons from Spain wait the arrival of the Peru fleet at Panama, and on the firſt advice of this, ſail away for Porto Bello; at the end of the fair held at that town, they return into this bay, and, after taking on board every neceſſary for their voyage, put to ſea again as ſoon as poſſible. During their abſence the bay is little frequented; the country veſſels, which are only a few bilanders and feluccas, ſtay no longer than is neceſſary to careen and fit out for proſecuting their voyage.

CHAP. IV.—*Of the Inhabitants of Carthagena.*

THE inhabitants may be divided into different caſts or tribes, who derive their origin from a coalition of Whites, Negroes, and Indians. Of each of theſe we ſhall treat particularly.

The Whites may be divided into two claſſes, the Europeans, and Creoles, or Whites born in the country. The former are commonly called Chapetones, but are not numerous; moſt of them either return into Spain after acquiring a competent fortune, or remove up into inland provinces in order to increaſe it. Thoſe who are ſettled at Carthagena carry on the whole trade of that place, and live in opulence; whilſt the other inhabitants are indigent, and reduced to have recourſe to mean and hard labour for ſubſiſtence. The families of the White Creoles compoſe the landed intereſt; ſome of them have large eſtates, and are highly reſpected, becauſe their anceſtors came into the country inveſted with honourable poſts, bringing their families with them when they ſettled here. Some of theſe families, in order to keep up their original dignity, have either married their children to their equals in the country, or ſent them as officers on board the galleons; but others have greatly declined. Beſides theſe, there are other Whites, in mean circumſtances, who either owe their origin to Indian families, or at leaſt to an intermarriage with them, ſo that there is ſome mixture in their blood; but when this is not diſcoverable by their colour, the conceit of being Whites alleviates the preſſure of every other calamity.

Among the other tribes which are derived from an intermarriage of the Whites with the Negroes, the firſt are the Mulattos. Next to theſe the Tercerones, produced from a White and a Mulatto, with ſome approximation to the former, but not ſo near as to obliterate their origin. After theſe follow the Quarterones, proceeding from a White and a Terceron. The laſt are the Quinterones, who owe their origin to a White and Quarteron. This is the laſt gradation, there being no viſible difference between them and the Whites, either in colour or features; nay, they are often fairer than the Spaniards. The children of a White and Quinteron are alſo called Spaniards, and conſider themſelves as free from all taint of the Negro race. Every perſon is ſo jealous of the order of their tribe or caſt, that if, through inadvertence, you call them by a

degree lower than what they actually are, they are highly offended, never ſuffering themſelves to be deprived of ſo valuable a gift of fortune.

Before they attain the claſs of the Quinterones, there are ſeveral intervening circumſtances which throw them back; for between the Mulatto and the Negro there is an intermediate race, which they call Sambos, owing their origin to a mixture between one of theſe with an Indian, or among themſelves. They are alſo diſtinguiſhed according to the caſts their fathers were of. Betwixt the Tercerones and the Mulattos, the Quarterones and the Tercerones, &c. are thoſe called Tente en el Ayre, ſuſpended in the air, becauſe they neither advance nor recede. Children, whoſe parents are a Quarteron or Quinteron, and a Mulatto or Terceron, are Salto atras, retrogrades, becauſe, inſtead of advancing towards being Whites, they have gone backwards towards the Negro race. The children between a Negro and Quinteron are called Sambos de Negro, de Mulatto, de Terceron, &c.

Theſe are the moſt known and common tribes or Caſtas; there are, indeed, ſeveral others proceeding from their intermarriages; but, being ſo various, even they themſelves cannot eaſily diſtinguiſh them; and theſe are the only people one ſees in the city, the eſtancias*, and the villages; for if any Whites, eſpecially women, are met with, it is only accidental, theſe generally reſiding in their houſes, at leaſt, if they are of any rank or character.

Theſe caſts, from the Mulattos, all affect the Spaniſh dreſs, but wear very ſlight ſtuffs on account of the heat of the climate. Theſe are the mechanics of the city; the Whites, whether Creoles, or Chapitones, diſdaining ſuch a mean occupation, follow nothing below merchandize: but it being impoſſible for all to ſucceed, great numbers not being able to procure ſufficient credit, they become poor and miſerable from their averſion to thoſe trades they follow in Europe; and, inſtead of the riches which they flattered themſelves with poſſeſſing in the Indies, they experience the moſt complicated wretchedneſs.

The claſs of Negroes is not the leaſt numerous, and is divided into two parts; the free and the ſlaves. Theſe are again ſubdivided into Creoles and Bozares, part of which are employed in the cultivation of the haziandes †, or eſtancias. Thoſe in the city are obliged to perform the moſt laborious ſervices, and pay out of their wages a certain quota to their maſters, ſubſiſting themſelves on the ſmall remainder. The violence of the heat not permitting them to wear any clothes, their only covering is a ſmall piece of cotton ſtuff about their waiſt; the female ſlaves go in the ſame manner. Some of theſe live at the eſtancias, being married to the ſlaves who work there; while thoſe in the city ſell in the markets all kind of eatables, and dry fruits, ſweet-meats, cakes made of the maize, and caſſava, and ſeveral other things about the ſtreets. Thoſe who have children ſucking at their breaſt, which is the caſe of the generality, carry them on their ſhoulders, in order to have their arms at liberty; and when the infants are hungry, they give them the breaſt either under the arm or over the ſhoulder, without taking them from their backs. This will, perhaps, appear incredible; but their breaſts, being left to grow without any preſſure on them, often hang down to their very waiſt, and are not therefore difficult to turn over their ſhoulders for the convenience of the infant.

* Eſtancia properly ſignifies a manſion, or place where one ſtops to reſt; but at Carthagena it implies a country-houſe, which, by reaſon of the great number of ſlaves belonging to it, often equals a conſiderable village.

† Hazianda in this place ſignifies a country-houſe, with the lands belonging to it.

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The dreſs of the Whites, both men and women, differs very little from that worn in Spain. The perſons in grand employments wear the ſame habits as in Europe; but with this difference, that all their clothes are very light, the waiſtcoats and breeches being of fine Bretagne linen, and the coat of ſome other thin ſtuff. Wigs are not much worn here; and during our ſtay, the governor and two or three of the chief officers only appeared in them. Neckcloths are alſo uncommon, the neck of the ſhirt being adorned with large gold buttons, and theſe generally ſuffered to hang looſe. On their heads they wear a cap of very fine and white linen. Others go entirely bareheaded, having their hair cut from the nape of the neck *. Fans are very commonly worn by men, and made of a very thin kind of palm in the form of a creſcent, having a ſtick of the ſame wood in the middle. Thoſe who are not of the White claſs, or of any eminent family, wear a cloak and a hat flapped; though ſome Mulattos and Negroes dreſs like the Spaniards and great men of the country.

The Spaniſh women wear a kind of petticoat, which they call pollera, made of a thin ſilk, without any lining, and on their body, a very thin white waiſtcoat; but even this is only worn in what they call winter, it being inſupportable in ſummer. They, however, always lace in ſuch a manner as to conceal their breaſts. When they go abroad they wear a mantelet; and on the days of precept, they go to maſs at three in the morning in order to diſcharge that duty, and return before the violent heat of the day, which begins with the dawn †.

Women wear over their pollera a taffety petticoat, of any colour they pleaſe, except black; this is pinked all over, to ſhew the other they wear under it. On the head is a cap of fine white linen, covered with lace, in the ſhape of a mitre, and, being well ſtarched, terminates forward in a point. This they call panito, and never appear abroad without it, and a mantelet on their ſhoulders. The ladies, and other native Whites, uſe this as their undreſs, and it greatly becomes them; for, having been uſed to it from their infancy, they wear it with a better air. Inſtead of ſhoes, they only wear, both within and without doors, a kind of ſlippers, large enough only to contain the tip of their feet. In the houſe their whole exerciſe conſiſts in ſitting in their hammocks ‡, and ſwinging themſelves for air. This is ſo general a cuſtom, that there is not a houſe without two or three, according to the number of the family. In theſe they paſs the greater part of the day, and often men, as well as women, ſleep in them, without minding the inconveniency of not ſtretching the body at full length.

Both ſexes are poſſeſſed of a great deal of wit and penetration, and alſo of a genius proper to excel in all kinds of mechanic arts. This is particularly conſpicuous in thoſe who apply themſelves to literature, and who at a tender age, ſhow a judgment and perſpicacity, which in other climates, is attained only by a long ſeries of years and the greateſt application. This happy diſpoſition and perſpicacity continues till they are between twenty and thirty years of age, after which they generally decline as faſt as they roſe; and frequently, before they arrive at that age, when they ſhould begin to reap the advantage of their ſtudies, a natural indolence checks their farther progreſs, and they forſake the ſciences, leaving the ſurpriſing effects of their capacity imperfect.

* Here, and in moſt parts of South America, they have their hair cut ſo ſhort, that a ſtranger would think every man had a wig, but did not wear it on account of the heat.

† The heat is inconſiderable, compared with that of the afternoon, till half an hour after ſun-riſe. —A.

‡ Theſe hammocks are made of twiſted cotton, and commonly knit in the manner of a net, and make no ſmall part of the traffick of the Indians, by whom they are chiefly made. —A.

The principal cauſe of the ſhort duration of ſuch promiſing beginnings, and of the indolent turn ſo often ſeen in thoſe bright geniuſes, is doubtleſs the want of proper objects for exerciſing their faculties, and the ſmall hopes of being preferred to any poſt anſwerable to the pains they have taken. For as there is in this country neither army nor navy, and the civil employments very few, it is not at all ſurpriſing that the deſpair of making their fortunes by this method, ſhould damp their ardour for excelling in the ſciences, and plunge them into idleneſs, the ſure forerunner of vice; where they loſe the uſe of their reaſon, and ſtifle thoſe good principles which fired them when young and under proper ſubjection. The ſame is evident in the mechanic arts, in which they demonſtrate a ſurpriſing ſkill in a very little time; but ſoon leave thoſe alſo imperfect, without attempting to improve on the methods of their maſters. Nothing indeed is more ſurpriſing than the early advances of the mind in this country, children of two or three years of age converſing with a regularity and ſerioufneſs that is rarely ſeen in Europe at ſix or ſeven; and at an age when they can ſcarce ſee the light, are acquainted with all the depths of wickedneſs.

The genius of the Americans being more forward than that of the Europeans, many have been willing to believe that it alſo ſooner decays; and that at ſixty years, or before, they have outlived that ſolid judgment and penetration, ſo general among us at that time of life; and it has been ſaid that their genius decays, while that of the Europeans is haſtening to its maturity and perfection. But this is a vulgar prejudice, confuted by numberleſs inſtances, and particularly by the celebrated Father Fr. Benito Feyjoo, Têatro Critico, vol. iv. eſſay 6. All who have travelled with any attention through theſe countries, have obſerved in the natives of every age a permanent capacity, and uniform brightneſs of intellect; if they were not of that wretched number, who diſorder both their minds and bodies by their vices. And indeed one often ſees here perſons of eminent prudence and extenſive talents, both in the ſpeculative and practical ſciences, and who retain them in all their vigour, to a very advanced age.

Charity is a virtue in which all the inhabitants of Carthagena, without exception, may be ſaid particularly to excel: and did they not liberally exert it towards European ſtrangers, who generally come hither to ſeek their fortune, ſuch would often periſh with ſickneſs and poverty. This appears to me a ſubject of ſuch importance, though well known to all who have viſited this part of the world, that I ſhall add a word or two on it, in order to undeceive thoſe, who, not contented with perhaps a competent eſtate in their own country, imagine that it is only ſetting their foot in the Indies, and their fortune is made.

Thoſe who on board the galleons are called Pulizones, as being men without employment, ſtock, or recommendation; who, leaving their country as fugitives, and, without licenſe from the officers, come to ſeek their fortune in a country where they are utterly unknown; after traverſing the ſtreets till they have nothing left to procure them lodging or food, they are reduced to have recourſe to the laſt extremity, the Franciſcan hoſpital; where they receive, in a quantity ſufficient barely to keep them alive, a kind of pap made of caſava; of which, as the natives themſelves will not eat, the diſagreeableneſs to wretched mortals never uſed to ſuch food, may eaſily be conceived *. This is their food; their lodging is the entrance of the ſquares, and the porticos of churches, till their good fortune throws them in the way of hiring themſelves to ſome trader going up the country, who wants a ſervant. The city merchants,

* This is called Mandioc by the natives, and is the chief ſubſtitute the poorer people have for bread; and ſo far from being rejected even by the richer, that many prefer it to bread made from the beſt European flour, much more to biſcuit, which after ſuch a voyage generally begins to be full of weevils A.

ſtanding

ſtanding in no need of them, diſcountenance theſe adventurers. Affected by the difference of the climate, aggravated by bad food, dejected and tortured by the entire diſappointment of their romantic hopes, they fall into a thouſand evils, which cannot well be repreſented: and among others, that diſtemper called Chapetonada, or the diſtemper of the Chapetones, without any other ſuccour to fly to than Divine Providence; for none find admittance into the hoſpital of St. Juan de Dios, but thoſe who are able to pay, and conſequently poverty becomes an abſolute excluſion. Now it is that the charity of theſe people becomes conſpicuous. The negro and mulatto free women, moved at their deplorable condition, carry them to their houſes, and nurſe them with the greateſt care and affection. If any one die, they bury him by the charity they procure, and even cauſe maſſes to be ſaid for him. The general iſſue of this endearing benevolence is, that the Chapetone, on his recovery, during the fervour of his gratitude, marries either his negro or mulatto benefactreſs, or one of her daughters; and thus he becomes ſettled, but much more wretchedly than he could have been in his own country, with only his own labour to ſubſiſt on.

The diſintereſtedneſs of theſe people is ſuch, that their compaſſion towards the Chapetones muſt not be imputed to the hopes of producing a marriage, it being very common for them to refuſe ſuch offers, either with regard to themſelves or their daughters, that their miſery may not be perpetual, but endeavour to find them maſters whom they may attend up the country, to Santa Fe, Popayan, Quito, and Peru, whither their inclinations or proſpects lead them.

They who remain in the city, whether bound by one of the above marriages, or, which is but too common, are in another condition very dangerous to their future happineſs, turn Pulperos *, Canoeros, or ſuch like mean occupations; in all which, they are ſo harraſſed with labour, and their wages ſo ſmall, that their condition in their own country muſt have been miſerable indeed, if they have not reaſon to regret quitting it. The height of their enjoyment, after toiling all day and part of the night, is to regale with bananas, a cake of maize or caſava, which ſerves for bread, and a ſlice of caſajo, or hung-beef; without taſting wheat bread during the whole year.

Others, not a few, equally unfortunate, retire to ſome ſmall eſtancia, where, in a Bujio or ſtraw hut, they live little different from beaſts, cultivating, in a very ſmall ſpot, ſuch vegetables as are at hand, and ſubſiſting on the ſale of them.

What has been obſerved with regard to the negro and mulatto women, and which may alſo be extended to the other caſts, is, as to the charitable part, applicable to all the women and whites; who in every tribe, are of a very mild and amiable diſpoſition; and from their natural ſoftneſs and ſympathy excel the men in the practice of that chriſtian virtue.

Among the reigning cuſtoms here, ſome are very different from thoſe of Spain, or the moſt known parts of Europe. The principal of theſe are the uſe of brandy, chocolate, honey, ſweat-meats, and ſmoking tobacco: all which ſhall be taken notice of.

The uſe of brandy is ſo common, that the moſt regular and ſober perſons never omit drinking a glaſs of it every morning about eleven o'clock; alledging that this ſpirit ſtrengthens the ſtomach, weakened by copious and conſtant perſpiration, and ſharpens the appetite. Hazer las onze, to take a whet at eleven, that is to drink a glaſs of brandy, is the common invitation. This cuſtom, not eſteemed pernicious by theſe people when uſed with moderation, has degenerated into vice; many being ſo

* Pulperos are men who work in a kind of tent, called in Spaniſh Pulperios, and the Canoeros are watermen who carry goods in Pirogues or canoes.

fond

fond of it, that during the whole day, they do nothing but hazer las onze. Perſons of diſtinction uſe Spaniſh brandy, but the lower claſs and negroes very contentedly take up with that of the country, extracted from the juice of the ſugar-cane, and thence called Agoa ardente de canna, or cane brandy, of which ſort the conſumption is much the greateſt.

Chocolate, here known only by the name of cacao, is ſo common, that there is not a negro ſlave but conſtantly allows himſelf a regale of it after breakfaſt; and the negro women ſell it ready made about the ſtreets, at the rate of a quarter of a real (about five farthings ſterling) for a diſh. This is however ſo far from being all cacao, that the principal ingredient is maize: but that uſed by the better ſort is neat, and worked as in Spain. This they conſtantly repeat an hour after dinner, but never uſe it faſting, or without eating ſomething with it.

They alſo make great uſe of ſweet-meats and honey; never ſo much as drinking a glaſs of water without previouſly eating ſome ſweet-meats. Honey is often preferred as the ſweeter, to conſerves or other ſweet-meats either wet or dry. Their ſweet-meats are eaten with wheat bread, which they uſe only with theſe and chocolate; the honey they ſpread on caſava cakes.

The paſſion for ſmoking is no leſs univerſal, prevailing among perſons of all ranks in both ſexes. The ladies and other white women ſmoke in their houſes, a decency not obſerved either by the women of the other caſts, nor by the men in general, who regard neither time nor place. The manner of uſing it is, by ſlender rolls compoſed of the leaves of that plant; and the women have a particular manner of inhaling the ſmoke. They put the lighted part of the roll into their mouths, and there continue it a long time without its being quenched, or the fire incommoding them. A compliment paid to thoſe for whom they profeſs an intimacy and eſteem, is, to light their tobacco for them, and to hand them round to thoſe who viſit them. To refuſe the offer would be a mark of rudeneſs not eaſily digeſted; and accordingly they are very cautious of paying this compliment to any but thoſe whom they previouſly know to be uſed to tobacco. This cuſtom the ladies learn in their childhood from their nurſes, who are negro ſlaves; it is ſo common among perſons of rank, that thoſe who come from Europe eaſily join in it, if they intend to make any conſiderable ſtay in the country.

One of the moſt favourite amuſements of the natives here, is a ball, or Fandango. Theſe are the diſtinguiſhed rejoicings on feſtivals and remarkable days. But while the galleons, guarda coſtas, or other Spaniſh ſhips are here, they are moſt common, and at the ſame time conducted with the leaſt order; the crews of the ſhips forcing themſelves into their ball-rooms. Theſe diverſions, in houſes of diſtinction, are conducted in a very regular manner; they open with Spaniſh dances, and are ſucceeded by thoſe of the country, which are not without ſpirit and gracefulneſs. Theſe are accompanied with ſinging, and the parties rarely break up before day-light.

The Fandangos or balls of the populace, conſiſt principally in drinking brandy and wine, intermixed with indecent and ſcandalous motions and geſtures; and thoſe continual rounds of drinking ſoon give riſe to quarrels, which often bring on misfortunes. When ſtrangers of rank viſit the city, they are generally at the expenſe of theſe balls; as the entrance is free, and no want of liquor, they need give themſelves no concern about the want of company.

Their burials and mournings are ſomething ſingular; as in this particular they endeavour to diſplay their grandeur and dignity, too often at the expenſe of their tranquillity. If the deceaſed be a perſon of condition, his body is placed on a pompous

Cataſalco, erected on the principal apartment of the houſe, amidſt a blaze of tapers. In this manner the corpſe lies twenty-four hours or longer, for friends to viſit it at all hours; as alſo the lower claſs of women, among whom it is a cuſtom to lament over the deceaſed.

Theſe women, who are generally dreſſed in black, come in the evening, or during the night, into the apartment where the corpſe lies; and having approached it, throw themſelves on their knees, then riſe and extend their arms as to embrace it; after which, they begin their lamentations in a doleful tone, mixed with horrid cries, which always conclude with the name of the deceaſed: afterwards they begin, in the ſame diſagreeable vociferations, his hiſtory, rehearſing all his good and bad qualities, not even omitting his amours of any kind, and in ſo circumſtantial a narrative, that a general confeſſion could hardly be more full; at length, quite ſpent, they withdraw to a corner ſtored with brandy and wine, on which they never fail plentifully to regale themſelves. As theſe depart from the body, others ſucceed, till they have all taken their turn. The ſame, afterwards is repeated by the ſervants, ſlaves, and acquaintance of the family, which continues without intermiſſion during the remainder of the night; whence may eaſily be imagined the confuſion and noiſe occaſioned by this diſmal vociferous ceremony.

The funeral alſo is accompanied with the like noiſy lamentations; and even after the corpſe is depoſited in thegrave, the mourning is continued in the houſe for nine days, during which time the Pacientes or mourners, whether men or women, never ſtir from the apartment, where they receive the Peſanes, or compliments of condolence. During nine nights, from ſun-ſet to ſun-riſing, they are attended by their relations and intimate acquaintances; and it may be truly ſaid of them, that they are all ſincerely ſorrowful; the mourners for the loſs of the deceaſed, and the viſitors from the uneaſineſs and fatigue of ſo uncomfortable an attendance.

CHAP. V. — *Of the Climate of Carthagena, and the Diſeaſes incident to Natives and Foreigners.*

THE climate of Carthagena is exceſſively hot, for by obſervations we made on the 19th of November 1735, by a thermometer conſtructed according to Mr. Reaumur, the ſpirit was elevated to 1025½; and in our ſeveral experiments made at different hours, varied only from 1024 to 1026. By experiments made the ſame year at Paris on a thermometer of the ſame gentleman, the ſpirit roſe on the 16th of July at three in the afternoon, and on the 10th of Auguſt at half an hour after three, to 1025½, and this was the greateſt degree of heat felt at Paris during that year; conſequently the degree of heat in the hotteſt day at Paris, is continual at Carthagena.

But the nature of this climate chiefly diſplays itſelf from the month of May to the end of November, the ſeaſon they call winter; becauſe during that time, there is almoſt a continual ſucceſſion of thunder, rain, and tempeſts; the clouds precipitating the rain with ſuch impetuoſity, that the ſtreets have the appearance of rivers, and the country of an ocean. The inhabitants make uſe of this opportunity, otherwiſe ſo dreadful, for filling their ciſterns; this being the only ſweet water they can procure. Beſides the water ſaved for private uſes, there are large reſervoirs on the baſtions, that the town may not be reduced to the ſhocking conſequence of wanting water. There are indeed wells in moſt houſes; but the water being thick and brackiſh, is not fit to drink, but ſerves for other uſes.

From

From the middle of December to the end of April, the rains ceaſe, and the weather becomes agreeable, the heat being ſomewhat abated by the north-eaſt winds which then ſet in. This ſeaſon they call ſummer; beſides which, there is another called the Little Summer of St. John, as, about the feſtival of that ſaint, the rains are intermitted, and refreſhing gales begin to blow, and continue about a month.

The invariable continuance of ſuch great heats, without any ſenſible difference between night and day, occaſions ſuch profuſe perſpiration, that the wan and livid complexion of the inhabitants would make a ſtranger ſuſpect they were juſt recovered from ſome terrible diſtemper. Their actions are conformable to their colour; in all their motions there is ſomething lax and ſluggiſh; it even affects their ſpeech, which is ſoft and ſlow, and their words generally broken. But notwithſtanding all theſe appearances of ſickneſs and debility, they enjoy a good ſtate of health. Strangers from Europe retain their ſtrength and ruddy colour poſſibly for three or four months; but afterwards both ſuffer ſuch decays from the exceſſive perſpiration, that theſe new-comers are no longer to be diſtinguiſhed by their countenances from the old inhabitants. Young perſons are generally moſt affected by the climate, which ſpares the more aged, who preſerve their vivid countenance, and ſo confirmed a ſtate of health, as even to reach their eightieth year and upwards: this is common among all the claſſes of inhabitants.

The ſingularity of the climate, in all probability, occaſions the ſingularity of ſome of the diſtempers which here affect the human race; and theſe may be conſidered in two different lights; one, as only attacking the Europeans newly landed, and the other, as common both to Creoles and Chapitones.

Thoſe of the firſt kind are, in the country, commonly called Chapetonadas, alluding to the name given there to the Europeans. Theſe diſtempers are ſo very deleterious, that they carry off a multitude of people, and thin the crews of European ſhips; but they ſeldom laſt above three or four days, in which time the patient is either dead or out of danger. The nature of this diſtemper is but little known, being cauſed in ſome perſons by cold, and in others by indigeſtion; it ſoon brings on the vomito prieto, or black vomit, which is the fatal ſymptom; very few being ever known to recover. Some, when the vomit attacks them, are ſeized with ſuch a delirium, that, were they not tied down, they would tear themſelves to pieces, and thus expire in the midſt of their furious paroxyſms. It is remarkable, that only the new-comers from Europe are ſubject to this diſtemper, and that the natives, and thoſe who have lived ſome time here, are never affected by it; but enjoy an uninterrupted ſtate of health, amidſt the dreadful havock it makes among others. It is alſo obſerved to rage more among the common ſeamen, than thoſe who have been able to live on more wholeſome food; whence, ſalt meat has been conſidered as pernicious in bringing on this diſtemper, and that the humours it produces, together with the labour and hardſhips of the ſeamen, incline their blood to putrefaction, and from this putrefaction the vomito prieto is ſuppoſed to have its origin. Not that the ſailors are its only victims, for even paſſengers, who poſſibly have not taſted any ſalt meat during the voyage, often feel its effects. Another remarkable circumſtance is, that perſons who have been once in this climate are never after, upon their return again, ſubject to this diſtemper; but enjoy the ſame ſtate of health with the natives, even though they do not lead the moſt temperate lives.

The inveſtigation of the cauſe of this ſtrange diſtemper has exerciſed the attention of all the ſurgeons in the galleons, as well as the phyſicians of the country; and the reſult of their reſearches is, that they impute it to the food, labour, and hardſhips of the ſeamen. Doubtleſs theſe are collateral cauſes; but the principal queſtion is, why perſons exempt from thoſe inconveniences, frequently die of the diſtemper? Unhappily,

after all the experiments that have been made, no good method of treatment has been diſcovered; no ſpecific for curing it, nor preſervative againſt it. The ſymptoms are ſo vague, as ſometimes not to be diſtinguiſhed from thoſe of ſlight indiſpoſitions; and though the vomit be the determinate ſymptom, the fever preceding it is obſerved to be very oppreſſive, and extremely affecting to the head.

This diſtemper does not ſhew itſelf immediately after the arrival of the European ſhips in the bay, nor has it been long known here; for what was formerly called Chapetonades, were only indigeſtions, which, though always dangerous in theſe climates, were, with little difficulty, cured by remedies prepared by the women of the country, and which are ſtill uſed with ſucceſs, eſpecially if taken in the beginning. The ſhips afterwards going to Porto Bello, were there firſt attacked by this terrible diſeaſe, which has always been attributed to the inclemency of the climate, and the fatigue of the ſeamen in unloading the ſhips, and drawing the goods during the fair.

The vomito prieto was unknown at Carthagena and all along the coaſt, till the years 1729 and 1730. In 1729, Don Domingo Juſtiniani, commodore of the guarda coſtas, loſt ſo conſiderable a part of his ſhips' companies at Santa Martha, that the ſurvivors were ſtruck with aſtoniſhment and horror at the havock made among their comrades. In 1730, when the galleons under Don Manuel Lopez Pintado came to Carthagena, the ſeamen were ſeized with the ſame dreadful mortality; and ſo ſudden were the attacks of the diſeaſe, that perſons walking about one day, were the next carried to their graves.

The inhabitants of Carthagena, together with thoſe in the whole extent of its government, are very ſubject to the mal de San Lazaro, or leproſy, which ſeems ſtill to gain ground. Some phyſicians attribute the prevalence of it to pork, which is here a very common food; but it may be objected, that in other countries, where this fleſh is as frequently eaten, no ſuch effects are ſeen, whence it evidently appears that ſome latent quality of the climate muſt alſo contribute to it. In order to ſtop the contagion of this diſtemper, there is without the city, an hoſpital called San Lazaro, not far from the hill on which is a caſtle of the ſame name. In this hoſpital all perſons of both ſexes labouring under this diſtemper are confined, without any diſtinction of age or rank; and if any refuſe to go, they are forcibly carried thither. But here the diſtemper increaſes among themſelves, they being permitted to intermarry, by which means it is rendered perpetual. Beſides, their allowance being here too ſcanty to ſubſiſt on, they are permitted to beg in the city; and from their intercourſe with thoſe in health, the number of lepers never decreaſes, and is at preſent ſo conſiderable, that their hoſpital reſembles a little town. Every perſon at his entering this ſtructure, where he is to continue during life, builds a cottage, called in the country Bujio, proportional to his ability, where he lives in the ſame manner as before in his houſe, the prohibition of not going beyond the limits preſcribed him, unleſs to aſk alms in the city, only excepted. The ground on which the hoſpital ſtands is ſurrounded by a wall, and has only one gate, and that always carefully guarded.

Amidſt all the inconveniences attending this diſtemper, they live a long time under it, and ſome even attain to an advanced age. It alſo greatly increaſes the natural deſire of coition, and intercourſe of the ſexes; ſo that, to avoid the diſorders which would reſult from indulging this paſſion, now almoſt impoſſible to be controlled, they are permitted to marry.

If the leproſy be common and contagious in this climate, the itch and herpes are equally ſo, eſpecially among Europeans, who are not ſeaſoned to the climate; and, if neglected in the beginning, it is dangerous to attempt a cure when cuſtom has rendered

them natural. The remedy againſt them, in the firſt ſtage, is a kind of earth called Maquimaqui, found in the neighbourhood of Carthagena, and, on the account of this virtue, exported to other parts.

Another very ſingular diſtemper, though not ſo common, is the cobrilla, or little ſnake, being, as the moſt ſkilful think, a tumour cauſed by certain malignant humours, ſettled longitudinally between the membrane of the ſkin, and daily increaſing in length, till the ſwelling quite ſurrounds the part affected, which is uſually the arm, thigh, and leg; though ſometimes it has been known to ſpread itſelf all over theſe parts. The external indications of it are, a round inflamed tumour, of the thickneſs of a quarter of an inch, attended with a ſlight pain, but not vehement, and a numbneſs of the part, which often terminates in a mortification. The natives are very ſkilful in removing it by the following proceſs:—They firſt examine where (according to their phraſe) the head is, to which they apply a ſmall ſuppurative plaſter, and gently foment the whole tumour with oil. The next day the ſkin under the plaſter is found divided, and through the orifice appears a kind of white fibre, about the ſize of a coarſe ſewing thread; and this, according to them, is the cobrilla's head, which they carefully faſten to a thread of ſilk, and wind the other end of it about a card, rolled up like a cylinder. After this they repeat the fomentation with oil, and the following day continue to wind about the cylindric card the part of this ſmall fibre which appears in ſight. Thus they proceed till the whole is extracted, and the patient entirely cured. During this operation, their chief care is not to break the cobrilla; becauſe, they ſay, it would then cauſe a humour to ſpread through the body, and produce a great quantity of ſuch little ſnakes, as they will have them to be, when the cure would become extremely difficult. It is a current notion among them, that when it has, for want of care in the beginning, completed the circle, and, according to them, joined its head with its tail, the diſeaſe generally proves fatal. But this is very ſeldom the caſe; the pain warning the patient immediately to apply a remedy, which ſhould be accompanied with emollients for diſperſing the humour.

Theſe people firmly believe it to be a real cobrilla or ſmall ſnake, and accordingly have called it by that name. At its firſt appearance, a ſmall ſlow motion may indeed be perceived; but this is ſoon over, and poſſibly proceeds from the compreſſion or extenſion of the nervous fibres which compoſe it, without its having any animal life. I do not, however, pretend to determine abſolutely on this point.

Beſides theſe, another diſtemper common in this country is the ſpaſm, or convulſion, which always proves mortal, and ſeldom comes alone. And of this I ſhall ſpeak when I deſcribe other parts of America, where it is equally dangerous, and more common.

CHAP. VI. — *Deſcription of the Country, and of the Trees and Vegetables in the Neighbourhood of Carthagena.*

THE country about Carthagena is ſo luxuriant, that it is impoſſible to view, without admiration, the rich and perpetual verdure of the woods and plants it naturally produces. But theſe are advantages of which the natives make little uſe; their innate ſloth and indolence not allowing them to cultivate the gifts of nature, which ſeem to have been dealt out with a laviſh hand. The interwoven branches of the trees form a ſhelter impenetrable both to heat and light.

The trees here are large and lofty, their variety admirable, and entirely different from thoſe of Europe. The principal of theſe for dimenſions are, the caobo or acajou, the cedar

cedar, the maria, and the balſam tree. Of the firſt are made the canoes and champanes uſed for fiſhing, and the coaſt and river trade, within the juriſdiction of this government. Theſe trees produce no eatable fruit; but their wood is compact, fragrant, and beautiful. The cedar is of two kinds, white and reddiſh; but the laſt moſt eſteemed. The maria and the balſam trees, beſides the uſefulneſs of their timber, diſtil thoſe admirable balſams called Maria Oil, and Balſam of Tolu, ſo called from a village in the neighbourhood of which it is found in the greateſt quantity, and of a peculiar excellency.

Beſides theſe trees, here are alſo the tamarind, the medlar, the ſapote, the papayo, the guayabo, the cannafiſtulo or caſſia, the palm, the mançanillo, and ſeveral others, moſt of them producing a wholeſome and palatable fruit, with a durable and variegated wood. The mançanillo is particularly remarkable; its name is derived from the Spaniſh word Mançan, an apple, which the fruit of this tree exactly reſembles in ſhape, colour, and flavour; but contains, under this beautiful appearance, ſuch a ſubtle poiſon, that its effects are perceived before it is taſted. The tree is large, and its branches form near the top a kind of crown; its wood hard, and of a yellowiſh tinct. On being cut, it iſſues out a white juice, but not unlike that of the fig-tree, leſs white, and of a thinner conſiſtence; but equally poiſonous with the fruit itſelf; for if any happens to drop on any part of the fleſh, it immediately cauſes an ulcer and inflammation, and, unleſs ſpeedy application be uſed, ſoon ſpreads through all the other parts of the body *; ſo that it is neceſſary, after felling it, to leave it till thoroughly dried, in order to its being worked without danger; and then appears the beauty of this wood, which is exquiſitely variegated and veined like marble on its yellow ground. Upon taſting its fruit, the body immediately ſwells, till the violence of the poiſon, wanting ſufficient room, burſts it; as has been too fully confirmed by ſeveral melancholy inſtances of European ſailors who have been ſent on ſhore to cut wood. The ſame unhappy conſequence alſo attended great numbers of Spaniards at the conqueſt of theſe countries, till, according to Herrera, common oil was found to be the powerful antidote to this ſubtle poiſon.

But ſuch is the malignity of the mançanillo, that if a perſon happens to ſleep under it, he is ſoon awaked, and finds his body ſwelled almoſt as if he had actually eaten the fruit †; and continues in great danger and tortures, till relieved by repeated anointings and the uſe of cooling draughts. The very beaſts themſelves, by their natural inſtinct, are ſo far from eating its fruit, that they never approach the tree.

The palm-trees, riſing with their tufted heads above the branches of the others, form a grand perſpective on the mountains. Theſe, notwithſtanding the difference is ſcarce perceivable, are really of different kinds, as is evident from the diverſity of their fruit. They diſtinguiſh four principal ſpecies: the firſt produce cocoa; the ſecond dates, of a very pleaſant taſte; the third, called Palma-real, whoſe fruit, though of the ſame figure, but ſomething leſs than the date, is not at all palatable, but has a very diſagreeable taſte; and the fourth, which they call corozo, has a fruit larger than dates, of an exquiſite taſte, and proper for making cooling and wholeſome draughts. The palmitos, or branches of the palma-real, are agreeably taſted, and ſo large, as frequently to weigh from two to three arrobas ‡. The other ſpecies alſo produce them,

* The juice dropping on the fleſh generally cauſes an inflammation; but I do not remember ever to have ſeen an ulcer produced, or any very bad effects, the hot burning pain excepted. A.

† The author is here miſinformed. Indeed perſons, who have ſlept under the tree, have afterwards complained of an head-ach. Thoſe who happen to take ſhelter under it in a ſhower, generally feel the ſame effect, from the dropping of the leaves, as though the juice had dropt on them. A.

‡ The arroba is twenty-five pounds.

but

but neither in ſuch plenty, nor ſo ſucculent. Palm-wine is alſo extracted from all the four; but that from the palma-real and corozo is much the beſt. The manner of making it, is either by cutting down the palm-tree, or boring a hole in the trunk, in which is placed a tap, with a veſſel under it for receiving the liquor, which, after five or ſix days fermentation, becomes fit for drinking. The colour of it is whitiſh; the taſte racy: it bears a greater head than beer, and is of a very inebriating quality. The natives, however, reckon it cooling, and it is the favourite liquor of the Indians and Negroes. The guaiacum and ebony trees are equally common; and their hardneſs almoſt equal to that of iron. Theſe ſpecies of wood are ſometimes carried into Spain, where they are greatly eſteemed, but here they are diſregarded from their great plenty.

Among the variety of vegetables, which grow under the ſhade of the trees, and along the ſunny borders of the woods, the moſt common is the ſenſitive; on touching one of the leaves of which, all thoſe on the ſame branch immediately cloſe againſt each other. After a ſhort interval, they begin gradually to open and ſeparate from each other, till they are entirely expanded. The ſenſitive is a ſmall plant about a foot and a half or two feet in height, with a ſlender ſtem, and the branches proportionally weak and tender. The leaves are long, and ſtand ſo cloſe together, that all on one branch may be conſidered as a ſingle leaf, four or five inches in length, and ten lines in breadth; which, being ſubdivided into the other ſtill ſmaller, forms in each of them the true leaf, which is about four or five lines in length, and not quite one in breadth. On touching one of theſe ſmall leaves, all of them immediately quit their horizontal poſition, and fly into a perpendicular direction, cloſing their inward ſuperficies, ſo that thoſe, which before this ſenſitive motion made two leaves, now ſeem as but one. The vulgar name of this plant at Carthagena being improper to be mentioned here, we ſhall omit it; in other parts it is more decently called La Vergonoza, the baſhful, and La Donçella, the maiden. The common people imagine that this effect is cauſed by pronouncing its name at the inſtant of the touch; and are amazed that a plant ſhould have the wiſdom of ſhewing its obedience to what was ordered, or that it was too much affected by the injury offered it to conceal its reſentment.

We afterwards met with this plant at Guayaquil, where the climate ſeems to be better adapted to it than that of Carthagena; for it is not only more common, but grows to three or four feet in height, the leaves and every part in proportion.

In the woods about Carthagena are found a great quantity of bejucos of a different magnitude, figure, and colour, and ſome of the ſtems flat. One ſpecies is particularly known on account of its fruit called Habilla de Carthagena, the bean of Carthagena. It is about an inch broad, and nine lines in length, flat, and in the ſhape of a heart. The ſhell, though thin, is hard, and on the outſide ſcabrous. It contains a kernel reſembling an almond, but leſs white, and extremely bitter. This is one of the moſt effectual antidotes known in that country againſt the bites of vipers and ſerpents; for a little of it being eaten immediately after the bite, it preſently ſtops the effects of the poiſon; and accordingly all who frequent the woods, either for felling trees or hunting, never fail to eat a little of this habilla faſting, and repair to their work without any apprehenſion. I was informed by an European, who was a famous hunter, and by ſeveral other perſons worthy of credit, that, with this precaution, if any one happened to be bit by a ſerpent, it was attended with no ill conſequence. The natives tell you, that, this habilla being hot in the higheſt degree, much of it cannot be eaten; that the common doſe of it is leſs than the fourth part of a kernel, and that no hot liquor, as wine, brandy, &c. muſt be drunk immediately after taking it. In this caſe, they

doubtleſs derive their knowledge from experience. This valuable habilla is alſo known in other parts of America near Carthagena, and goes every where by its name, as being the peculiar product of its juriſdiction.

CHAP. VII. — *Of the Beaſts, Birds, Reptiles, and Inſects, in the Territories of Carthagena.*

FROM the trees and plants in this juriſdiction, we ſhall proceed to the different kinds of animals; ſome of which are tame for the uſe and pleaſure of its inhabitants; others wild, and of ſuch different qualities and kinds, as wonderfully diſplay the diverſity which the Author of nature has ſhewn in the multitude of his works. The quadrupeds and reptiles frequent the dry and deſert places, and are diſtinguiſhed by an endleſs variety of ſpots, whilſt the vivid plumage of the feathered race glows with exquiſite beauty; and the brilliant ſcales of another kind conceal the moſt active poiſons.

The only tame eatable animals are the cow and the hog, of which there are great plenty. The beef, though not abſolutely bad, cannot be ſaid to be palatable. The conſtant heat of the climate preventing the beaſts from fattening, deprives their fleſh of that ſucculency it would otherwiſe have acquired: the pork is delicate, and allowed not only to be the beſt in all America, but even to exceed any in Europe. This, which is the uſual food of Europeans and Creoles at Carthagena, beſides its palatableneſs, is alſo looked upon to be ſo wholeſome, that even ſick perſons are allowed it preferably to poultry, which is here very good, and in great abundance.

I muſt not omit a ſingular ſtratagem practiſed here for taking wild geeſe, the extreme cheapneſs of which naturally inclined us to aſk how they caught them in ſuch quantities: in anſwer to our queſtion, we received the following account. Near Carthagena, to the eaſtward of Monte de la Popa, is a large lake called La Cienega de Teſcas, abounding with fiſh, but reckoned unwholeſome. The water of this lake, communicating with the ſea, is ſalt, but without increaſe or decreaſe, the difference of the tides here being inſignificant. Every evening vaſt flights of geeſe retire hither from all the neighbouring countries, as their natural place of reſt during the night. The perſons who catch theſe birds, throw into the lake about fifteen or twenty large calabaſhes, which they call totumos; and the geeſe, being accuſtomed to ſee theſe calabaſhes floating on the water, never avoid them. In three or four days the perſons return early in the morning to the lake, with another calabaſh, having holes in it for ſeeing and breathing. This calabaſh he places on his head, and walks in the water, with only the calabaſh above the ſurface. In this manner, with all poſſible ſtillneſs, he moves towards the geeſe, pulling them under water with one hand, and then ſeizing them with the other. When he has thus taken as many as he is able to carry, he returns towards the ſhore, and delivers them to his companion, who waits for him at a certain diſtance in the water. This done, he renews his ſport, either till he has taken as many as he deſires, or the birds begin to diſperſe over the country.

Other perſons make it their buſineſs to procure different kinds of game, as deer, rabbits, and wild boars, called here ſajones; but theſe are eaten only by the country Negroes and Indians, except the rabbits, which meet with a good market in the city.

The wild beaſts are alſo of various kinds; as tigers, which make a great havock, not only among the cattle, but among the human ſpecies. Their ſkin is very beautiful, and ſome are as large as little horſes *. Here are alſo leopards, foxes, armadillos, a

* They are not larger than maſtiff dogs. A.

kind

kind of ſcaly lizard; ardillas, or ſquirrels, and many others; beſides innumerable kinds of monkies living in the woods, ſome remarkable for their ſize, others for their colour. The artifice generally obſerved by the fox, in defending itſelf againſt dogs or other animals, by whom it is purſued, by voiding its urine on its own tail and ſprinkling it on them, effectually here anſwers the intention; the ſmell of it being ſo ſtrong and fetid, that it throws the dogs into diſorder, and thus the fox eſcapes. The ſtench of this urine is ſo great, that it may be ſmelt a quarter of a league from the place; and very often for half an hour after. The fox here is not much bigger than a large cat; but delicately ſhaped; has a very fine coat, and of a cinnamon colour; but no large bruſh on its tail. The hair, however, is ſpungy, and forms a bunch proper for the above-mentioned method of defence.

Nature, which has furniſhed the fox with ſuch an effectual defence, has not forgot the armadillo, the name of which partly deſcribes it. The ſize of it is about that of a common rabbit, though of a very different ſhape; the ſnout, legs, and tail, reſembling thoſe of a pig. His whole body is covered with a ſtrong ſhell, which, anſwering exactly every where to the irregularities of its ſtructure, protects it from the inſults of other animals, without affecting its activity. Beſides this, he has another, as a helmet, connected by a joint to the former; this guards his head, and thus he is every way ſafe.

Theſe ſhells are variegated with ſeveral natural relievos, as it were, in chiaro oſcuro, ſo that they are at once his defence, and a beautiful ornament. The Negroes and Indians, who eat its fleſh, give a high character of it.

Among the monkies of this country, the moſt common are the micos, which are alſo the ſmalleſt. They are generally about the ſize of a cat, of a browniſh colour; and too well known to need any further deſcription. The larger kind, which are leſs known, I ſhall deſcribe in another place.

The birds ſeen in this hot climate are ſo numerous, that it is impoſſible to give a diſtinct repreſentation of them; particularly of the beauty and brilliancy of their various plumage. The cries and croakings of ſome, mixed with the warblings of others, diſturb the pleaſure which would flow from the melody of the latter, and render it impoſſible to diſtinguiſh the different cries of the former; and yet in this inſtance we may obſerve the wiſdom of Nature in diſtributing her favours; the plumage of thoſe birds being the moſt beautiful, whoſe croakings are the moſt offenſive; while, on the other hand, thoſe whoſe appearance has nothing remarkable, excel in the ſweetneſs of their notes. This is particularly evident in the guacamayo, the beauty and luſtre of whoſe colours are abſolutely inimitable by painting; and yet there is not a more ſhrill and diſagreeable ſound than the noiſe it makes: this is in a great meaſure common to all other birds, whoſe bills are hard and crooked, and their tongue thicker than uſual, as the parrots, the cotorras, and the periquitos. All theſe birds fly in troops, ſo that the air often ſounds with their cries.

But of all the ſingularities among the feathered race, nothing is more remarkable than the bill of the tulcan, or preacher. This bird is about the ſize of a common pigeon, but its legs much larger; its tail is ſhort, and its plumage of a dark colour, but ſpotted with blue, purple, yellow, and other colours; which have a beautiful effect on the dark ground. Its head is beyond all proportion to its body, but otherwiſe he would not be able to ſupport his bill, which, from the root to the point, is at leaſt ſix or eight inches, and the upper mandible has, at its root, a baſe of at leaſt an inch and a half, of a triangular figure, whoſe apex is at the point of the bill. The two lateral ſuperficies form a kind of elevation on the upper part; and the third receives the lower man-

dible, which cloſes with the upper through the whole length; ſo that the two parts are every where perfectly equal, and from their roof narrows inſenſibly, till near the top, where it ſuddenly becomes incurvated, and terminates in a ſtrong and ſharp point. The tongue is formed like a feather, and of a deep red colour, like the whole inſide of its mouth. The bill is variegated with all thoſe bright colours which adorn the plumage of other birds. At the baſe, and alſo at the convexity, it is generally of a light yellow, forming a kind of riband half an inch in breadth. The reſt is of a fine deep purple, except two ſtreaks near the root, of a rich ſcarlet, an inch diſtant from each other. The inward fleſhy parts, which touch when the bill is cloſed, are furniſhed with teeth, which form the ſurface of its two ſerrated mandibles. The name of Preacher has been given to this bird, from its cuſtom of perching on the top of a tree above his companions, while they are aſleep, and making a noiſe reſembling ill-articulated ſounds, moving his head to the right and left, in order to keep off the birds of prey from ſeizing on the others. They are eaſily rendered ſo very tame, as to run about in houſes, and come when called. Their uſual food is fruit; but the tame eat other things, and in general whatever is given them.

To deſcribe all the other extraordinary birds would engage me in a prolixity of little entertainment or uſe; but I hope a word or two on the Gallinazos will be excuſed. This bird is about the ſize of a pea-hen, but the neck and head ſomewhat larger. From the crop to the baſe of the bill, inſtead of feathers, it has a wrinkled, glandulous and rough ſkin, covered with ſmall worts and tubercles. Its feathers are black, which is alſo the colour of its ſkin, but uſually with ſomething of a browniſh tinct. Its bill is well proportioned, ſtrong, and a little crooked. They are ſo numerous and tame in the city, that it is not uncommon to ſee the ridges of the houſes covered with them. They are alſo very ſerviceable; for they clean the city from all kinds of filth and ordure, greedily devouring any dead animal, and, when theſe are wanting, ſeek other filth. They have ſo quick a ſcent, that they will ſmell at the diſtance of three or four leagues * a dead carcaſe, and never leave it till they have entirely reduced it to a ſkeleton †. The infinite number of theſe birds found in ſuch hot climates is an excellent proviſion of Nature, as otherwiſe the putrefaction cauſed by the conſtant and exceſſive heat would render the air inſupportable to human life. At firſt they fly heavily, but afterwards dart up out of ſight. On the ground they hop along with a kind of torpor, though their legs are ſtrong and well proportioned. They have three toes forward turning inwards, and one in the inſide, turned a little backwards; ſo that, the feet interfering, they cannot walk with any agility, but are obliged to hop or ſkip. Each toe has a long and thick claw.

When the gallinazos find no food in the city, their hunger drives them into the country, among the beaſts in the paſtures; and, on ſeeing any one with a ſore on the back, they immediately alight on it, and attack the part affected. It is in vain for the poor beaſt to endeavour to free itſelf from theſe devourers, either by rolling on the ground, or hideous cries; for they never quit their hold, but with their bills ſo widen the wound that the creature ſoon expires.

* The author ſhould have ſaid *miles*.— A.

† It is ſurpriſing to ſee what numbers of theſe birds gather round the carcaſe of a dead whale, which is no uncommon thing on theſe coaſts. The carcaſe ſhall be covered with them; and yet their number ſhall be nothing in compariſon to that hovering about, waiting for their turn, for which they often fight. They are ſeldom above a fortnight in making a ſkeleton of a large whale.— A.

There

There is another kind of gallinazos, ſomewhat larger than theſe, only to be met with in the country. In ſome of theſe the head and part of the neck are white, in ſome red, and in others a mixture of both theſe colours. A little above the beginning of the crop, they have a ruff of white feathers. Theſe are equally fierce and carnivorous with the former, and called the kings of the gallinazos, probably becauſe the number of them is but few; and it is obſerved, that when one of theſe has faſtened on a dead beaſt, none of the others approach till he has eaten the eyes, with which he generally begins, and is gone to another part, when they all flock to the prey.

Bats are very common all over the country; but Carthagena is infeſted with ſuch multitudes of them, that after ſun-ſet, when they begin to fly, they may, without any hyperbole, be ſaid to cover the ſtreets like clouds*. They are the moſt dextrous bleeders both of men and cattle; for the inhabitants being obliged, by the exceſſive heats, to leave open the doors and windows of the chambers where they ſleep, the bats get in, and if they happen to find the foot of any one bare, they inſinuate their tooth into a vein, with all the art of the moſt expert ſurgeon, ſucking the blood till they are ſatiated, and withdraw their tooth; after which the blood flows out at the orifice. I have been aſſured, by perſons of the ſtricteſt veracity, that ſuch an accident has happened to them; and that, had they not providentially awaked ſoon, their ſleep would have been their paſſage into eternity, they having loſt ſo large a quantity of blood, as hardly to be able to bind up the orifice. The puncture not being felt is (beſides the great precaution with which it is made) attributed to the gentle and refreſhing agitation of the air by the bat's wings, hindering the perſon from feeling this ſlight puncture by throwing him into a deeper ſleep. Nearly the ſame thing happens to horſes, mules, and aſſes, but beaſts of a thick and hard ſkin are not expoſed to this inconveniency.

We ſhall next proceed to the inſects and reptiles, in which nature has no leſs diſplayed its infinite power. The great number of them is not only an inconvenience to the inhabitants, but health, and even life itſelf, often ſuffers from the malignity of their poiſon. The principal are the ſnakes, the cientopes †, the ſcorpions, and the ſpiders; of all which there are different kinds, and their poiſons of different activity.

Of the ſnakes, the moſt common, and at the ſame time the moſt poiſonous, are the corales, or coral-ſnakes, the caſcabeles, or rattle-ſnakes, and the culebras de bejuco ‡. The firſt are generally between four and five feet in length, and an inch in diameter. They make a very beautiful appearance, their ſkin being all over variegated with a vivid crimſon, yellow, and green. The head is flat and long, like that of the European viper. Each mandible is furniſhed with a row of pointed teeth, through which, during the bite, they inſinuate the poiſon; the perſon bit immediately ſwells to ſuch a degree, that the blood guſhes out through all the organs of ſenſe, and even the coats of the veins at the extremities of the fingers burſt, ſo that he ſoon expires. The caſcabel or rattle-ſnake ſeldom exceeds two feet, or two feet and a half in length; though there are ſome of another ſpecies, which are three and a half. Its colour is brown, variegated with deeper ſhades of the ſame tinct; at the end of its tail is the caſcabel or rattle, in the form of a garvanzo or French bean-pod, when dried on the plant, and, like that, has five or ſix diviſions, in each

* They are almoſt as large as rats; and the inſide of the roofs of the out-houſes are generally lined with them. — A.

† Or hundred feet. They are very common throughout the warmer regions of America. Common ſalt is a ſpecific againſt their bite, as alſo againſt the ſting of the ſcorpion. — A.

‡ They are called Cobras by the natives, which is their common name for all kinds of ſerpents. — A.

of which are ſeveral ſmall round bones; theſe, at every motion of the ſnake, rattle, and thence gave riſe to its name. Thus nature, which has painted the coral ſnake with ſuch ſhining colours, that it may be perceived at a diſtance, has formed the latter in ſuch a manner, that, as its colours render it difficult to diſtinguiſh it from the ground, the rattle might give notice of its approach.

The culebras de bejuco, which are very numerous, have their name from their colour and ſhape reſembling the branches of the bejuco, and, as they hang down from that plant, appear as real parts of the bejuco, till a too near approach unhappily diſcovers the miſtake; and, though their poiſon be not ſo active as that of the others, without a ſpeedy application of ſome ſpecific, it proves mortal. Theſe remedies are perfectly known to the Negroes, Mulattos, and Indians frequenting the woods, and called curanderos. But the ſafeſt antidote is the habilla, already mentioned.

It is not, however, often that theſe dangerous ſerpents bite any one, unleſs, from inadvertence or deſign, he has been the aggreſſor. Beſides, they are ſo far from having any extraordinary agility, that they are remarkably torpid, and, as it were, half dead; ſo that, were it not for their motion in retiring to hide themſelves among the leaves, it would be difficult to determine whether they were dead or alive.

There are few parts of Europe which do not produce the cientopies or ſcolopendra; but at Carthagena they not only ſwarm, but are of a monſtrous ſize, and the more dangerous, as breeding more commonly in houſes than in the fields. They are generally a yard in length, ſome a yard and a quarter, the breadth about five inches, more or leſs, according to the length. Their figure is nearly circular, the back and ſides covered with hard ſcales, of a muſk colour, tinged with red; but theſe ſcales are ſo articulated, as not in the leaſt to impede their motion, and at the ſame time ſo ſtrong as to defend them againſt any blow, ſo that the head is the only place where you can ſtrike them to any purpoſe. They are alſo very nimble, and their bite, without timely application, proves mortal; nor is the patient free from conſiderable torture, till the medicine has deſtroyed the malignity of the poiſon.

The alacranes, or ſcorpions, are not leſs common, and of different kinds, as black, red, muſk colour, and ſome yellow. The firſt generally breed in dry rotten wood, and others in the corners of houſes, in cloſets and cupboards. They are of different ſizes, the largeſt about three inches long, excluſive of the tail. The ſting alſo of ſome is leſs dangerous than that of others; that of the black is reckoned the moſt malignant, though timely care prevents its being fatal. The ſtings of the other kinds produce fevers, numbneſſes in the hands and feet, forehead, ears, noſe and lips, tumours in the tongue, and dimneſs of ſight; theſe diſorders laſt generally twenty-four or forty-eight hours, when by degrees the patient recovers. The natives imagine, that a ſcorpion falling into the water purifies it, and therefore drink it without any examination. They are ſo accuſtomed to theſe inſects, that they do not fear them, but readily lay hold of them, taking care not to touch them only in the laſt vertebræ of the tail, to avoid being ſtung; ſometimes they cut their tails off and play with them. We more than once entertained ourſelves with an experiment of putting a ſcorpion into a glaſs veſſel, and injecting a little ſmoke of tobacco, and immediately by ſtopping it found that its averſion to this ſmell is ſuch, that it falls into the moſt furious agitations, till giving itſelf ſeveral repeated ſtings on the head, it finds relief by deſtroying itſelf. Hence we ſee that its poiſon has the ſame effect on itſelf as on others.

Here is alſo another inſect called caracol ſoldado, or the ſoldier-ſnail. From the middle of the body to the poſterior extremity it is ſhaped like the common ſnail, of a whitiſh colour and a ſpiral form: but the other half of the body reſembles a crab, both in ſize

and the diſpoſition of its claws. The colour of this, which is the principal part of its body, is of a light brown. The uſual length, excluſive of the tail, is about two inches, and the breadth one and a half. It is deſtitute both of ſhell and ſcale, and the body every where flexible. Its reſource againſt injuries is to ſeek a ſnail-ſhell of a proper ſize, in which it takes up its habitation. Sometimes it drags this ſnail-ſhell with it, and at other times quits it, while it goes out in queſt of food; but on the leaſt appearance of danger, it haſtens back to the ſhell, and thruſts itſelf into it, beginning with its hind part, ſo that the fore part fills the entrance, while the two claws are employed in its defence, the gripe of which is attended with the ſame ſymptoms as the ſting of a ſcorpion. In both caſes the patient is carefully kept from drinking any water, which has been known to bring on convulſions; and theſe always prove fatal.

The inhabitants relate, that when this creature grows too large for making its way into the ſhell which was its retreat, it retires to the ſea coaſt, in order to find there a larger, where killing the wilk, whoſe ſhell beſt ſuits him, he takes poſſeſſion of it; which is indeed the ſame method it took to obtain its firſt habitation. This laſt circumſtance, and the deſire of ſeeing the form of ſuch a creature, induced Don George Juan and myſelf to deſire the inhabitants to procure us ſome; and upon examination, we found all the above-mentioned particulars were really true; except the bite, which we did not chooſe to experience.

There are ſeveral other ſorts of inſects remaining, which though ſmaller, yet afford equal reaſon for admiration to a curious examiner; particularly the infinite variety of maripoſas, or butterflies, which though differing viſibly in figure, colours, and decorations, we are at a loſs to determine which is the moſt beautiful.

If theſe are ſo entertaining to the ſight, there are others no leſs troubleſome; ſo ſo that it would be more eligible to diſpenſe with the pleaſure of ſeeing the former, than to be continually tortured by the latter; as the moſchetos, of which large clouds may be ſeen, eſpecially among the ſavannahs and manglares, or plantations of mangrove trees, ſo that the one, as affording the herbage on which they feed, and the other, as the places where they produce their young, are rendered impaſſible.

There are four principal ſpecies of this inſect; the firſt called zancudos, which are the largeſt; the ſecond the moſchetos, differing little or nothing from thoſe of Spain *; the third gegenes, which are very ſmall and of a different ſhape, reſembling the weevil, about the ſize of a grain of muſtard-ſeed, and of an aſh colour. The fourth are the mantas blancas, or white cloaks, and ſo very minute that the inflammation of their bite is felt before the inſect that cauſed it is ſeen. Their colour is known by the infinite numbers of them which fill the air, and from thence they had their name. From the two former, few houſes are free. Their ſting is followed by a large tumour, the pain of which continues about two hours. The two laſt, which chiefly frequent fields and gardens, raiſe no tumour, but cauſe an inſupportable itching. Thus if the extreme heat renders the day troubleſome, theſe imperceptible inſects diſturb the repoſe of the night. And though the moſquiteros, a kind of gauze curtains, in ſome meaſure defend us from the three former, they are no ſafeguard againſt the latter, which make their way between the threads; unleſs the ſtuff be of a cloſer texture, in which caſe the heat becomes inſupportable.

The inſect of Carthagena called nigua, and in Peru pique, is ſhaped like a flea, but almoſt too ſmall for ſight. It is a great happineſs that its legs have not the elaſticity with thoſe of fleas; for could this inſect leap, every animal body would be filled with

* Or the gnat of England. A.

them;

them; and conſequently, both the brute and human ſpecies be ſoon extirpated by the multitudes of theſe inſects. They live amongſt the duſt, and therefore are moſt common in filthy places. They inſinuate themſelves into the legs, the ſoles of the feet, or toes, and pierce the ſkin with ſuch ſubtilty, that there is no being aware of them, till they have made their way into the fleſh *. If they are perceived at the beginning, they are extracted with little pain; but if the head only has pierced through the ſkin, an inciſion muſt be made before it can be taken out. If they are not ſoon perceived, they make their way through the ſkin, and take up their lodgings between that and the membrane of the fleſh; and ſucking the blood, form a nidus or neſt, covered with a white and fine tegument, reſembling a flat pearl: and the inſect is at it were, enchaſed in one of the faces, with its head and feet outwards, for the convenience of feeding, while the hinder part of the body is within the tunic, where it depoſits its eggs; and as the number of theſe encreaſes, the nidus enlarges, even to the diameter of a line and a half, or two lines, to which magnitude it generally attains in four or five days. There is an abſolute neceſſity for extracting it: for otherwiſe it would burſt of itſelf, and by that means ſcatter an infinite number of germs, reſembling nits, in ſize, ſhape, and colour, which becoming niguas, would, as it were, undermine the whole foot. They cauſe an extreme pain, eſpecially during the operation of extracting them: for ſometimes they penetrate even to the bone; and the pain, even after the foot is cleared of them, laſts till the fleſh has filled up the cavities they had made, and the ſkin is again cloſed.

The manner of performing this operation is both tedious and troubleſome; the fleſh contiguous to the membrane where the eggs of the inſect are lodged, is ſeparated with the point of a needle, and thoſe eggs ſo tenaciouſly adhere to the fleſh and this membrane, that to complete the operation without burſting the tegument, and putting the patient to the moſt acute pain, requires the greateſt dexterity. After ſeparating on every ſide the ſmall and almoſt imperceptible fibres, by which it was ſo cloſely connected with the membranes and muſcles of the part, the perilla, as they term it, is extracted, the dimenſions of which are proportional to the time it has exiſted. If unfortunately it ſhould burſt, the greateſt care muſt be uſed to clear away all the roots, particularly not to leave the principal nigua; as before the wound could be healed, there would be a new brood, further within the fleſh; and conſequently the cure much more difficult and painful.

The cavity left by the removal of the nidus, muſt be immediately filled either with tobacco aſhes, chewed tobacco, or ſnuff; and in hot countries, as Carthagena, great care muſt be taken not to wet the foot for the firſt two days, as convulſions would enſue; a diſtemper ſeldom got over: this conſequence has poſſibly been obſerved in ſome, and from thence conſidered as general †.

The firſt entrance of this inſect is attended with no ſenſible pain; but the next day, it brings on a fiery itching extremely painful, but more ſo in ſome parts than in others. This is the caſe in extracting it, when the inſect gets between the nails and the fleſh, or at the extremity of the toes. In the ſole of the foot and other parts where the ſkin is callous, they cauſe little or no pain.

This inſect ſhows an implacable hatred to ſome animals, particularly the hog; which it preys on with ſuch voracity, that when their feet come to be ſcalded, after being killed, they are found full of cavities made by this corroding inſect.

* They ſeldom inſinuate themſelves into the legs. A.

† There is no neceſſity for this precaution, as is well known to the honeſt tar. The tobacco aſhes, &c. entirely deſtroy the nits or ovaria, if any be left. A.

Minute as this creature is, there are two kinds of it; one venomous, and the other not. The latter perfectly reſembles the flea in colour, and gives a whiteneſs to the membrane where it depoſits its eggs. This cauſes no pain, but what is common in ſuch caſes. The former is yellowiſh, its nidus of an aſh colour, and its effects more extraordinary; as when lodged at the extremity of the toes, it violently inflames the glands of the groin, and the pain continues without abatement, till the nigua is extracted, that being the only remedy: after which the ſwelling ſubſides, and the pain ceaſes, thoſe glands correſponding with the foot, where the cauſe of the pain reſided. The true cauſe of this apparently ſtrange effect I ſhall not undertake to inveſtigate; the general opinion is, that ſome ſmall muſcles extending from theſe glands to the feet, being affected by the poiſon of the bite, communicate it to the glands, whence proceed the pain and inflammation. All I can affirm is, that I have often experienced it, and at firſt with no ſmall concern; till having frequently obſerved that theſe effects ceaſed on extracting the nigua, I thence concluded it to be the true cauſe of the diſorder. The ſame thing happened to all the French academicians who accompanied us on this expedition; and particularly to M. de Juſſieu, botaniſt to the King of France, whom frequent experience of theſe kinds of accidents taught to divide theſe inſects into two kinds.

As the preceding animals and inſects chiefly exerciſe their malignant qualities on the human ſpecies, ſo there are others which damage and deſtroy the furniture of houſes, particularly all kinds of hangings, whether of cloth, linen, ſilk, gold or ſilver ſtuffs, or laces; and indeed every thing, except thoſe of ſolid metal, where their voracity ſeems to be wearied out by the reſiſtance. This inſect called comegen, is nothing more than a kind of moth or maggot; but ſo expeditious in its depredations, that in a very ſhort time it entirely reduces to duſt one or more bales of merchandiſe where it happens to faſten; and without altering the form, perforates it through and through, with a ſubtilty which is not perceived till it comes to be handled, and then inſtead of thick cloth or linen, one finds only ſmall ſhreds and duſt. At all times the ſtricteſt attention is requiſite to prevent ſuch accidents, but chiefly at the arrival of the galleons; for then it may do immenſe damage among the vaſt quantity of goods landed for warehouſes, and for ſale in the ſhops. The beſt, and indeed the only method is, to lay the bales on benches, about half a yard from the ground, and to cover the feet of them with alquitran, or naphtha, the only preſervative againſt this ſpecies of vermin; for with regard to wood, it eats into that as eaſily as into the goods, but will not come near it when covered with naphtha as above.

Neither would this precaution be ſufficient for the ſafety of the goods, without a method of keeping them from touching the walls; and then they are ſufficiently ſecured. This inſect is ſo ſmall, as to be ſcarcely viſible to the naked eye, but of ſuch activity as to deſtroy all the goods in a warehouſe, where it has got footing, in one night's time. Accordingly it is uſual that in running the riſks of commerce, in goods conſigned to Carthagena, the circumſtances are ſpecified, and in theſe are underſtood to be included the loſſes that may happen in that city by the comegen. This inſect infeſts neither Porto Bello, nor even places nearer Carthagena, though they have ſo many other things in common with that city; nor is it ſo much as known among them.

What has been ſaid, will, I hope, be ſufficient to give an adequate idea of this country, without ſwelling the work with trivial obſervations, or ſuch as have been already publiſhed by others. We ſhall now proceed to treat diſtinctly of other equally wonderful works of Omnipotence, in this country.

CHAP.

CHAP. VIII. — *Of the eſculent Vegetables produced in the Territories of Carthagena, and the Food of the Inhabitants of that City.*

THOUGH Carthagena has not the convenience of being furniſhed by its ſoil with the different kinds of European vegetables, it does not want for others, far from being contemptible, and of which the inhabitants eat with pleaſure. Even the Europeans, who at their firſt coming cannot eaſily take up with them, are not long before they like them ſo well as to forget thoſe of their own country.

The conſtant moiſture and heat of this climate will not admit of barley, wheat, and other grain of this kind; but produces excellent maize and rice in ſuch abundance, that a buſhel of maize ſown, uſually produces an hundred at harveſt. From this grain they make the bollo or bread, uſed in all this country; they alſo uſe it in feeding hogs and fattening poultry. The maize bollo has no reſemblance to the bread made of wheat, either in ſhape or taſte. It is made in form of a cake; is of a white colour, and an inſipid taſte. The method of making it is to ſoak the maize, and afterwards bruiſe it between two ſtones; it is then put into large bins filled with water, where by rubbing and ſhifting it from one veſſel into another, they clear it from its huſk; after this it is ground into a paſte, of which the bollos are made. Theſe bollos being wrapped up in plantane or vijahua leaves, are boiled in water, and uſed as bread; but after twenty-four hours, become tough and of a diſagreeable taſte. In families of diſtinction the bollo is kneaded with milk, which greatly improves it, but being not thoroughly penetrated by the liquids, it never riſes, nor changes its natural colour; ſo that inſtead of a pleaſing taſte, it has only that of the flour of maize.

Beſides the bollo * here is alſo the caſava bread, very common among the negroes, made from the roots of yuca, names, and moniatos. After carefully taking off the upper ſkin of the root, they grate it, and ſteep it in water, in order to free it from a ſtrong acrid juice, which is a real poiſon, particularly that of the moniato. The water being ſeveral times ſhifted, that nothing of this acrimony may remain, the dough is made into round cakes about two feet diameter, and about three or four lines in thickneſs. Theſe cakes are baked in ovens, on plates of copper, or a kind of brick made for that purpoſe. It is a nouriſhing and ſtrengthening food, but very inſipid. It will keep ſo well, that at the end of two months it has the ſame taſte as the firſt day, except being more dry.

Wheat bread is not entirely uncommon at Carthagena; but, as the flour comes from Spain, the price of it may well be conceived to be above the reach of the generality. Accordingly it is uſed only by the Europeans ſettled at Carthagena, and ſome few Creoles; and by theſe only with their chocolate and conſerves. At all other meals, ſo ſtrong is the force of a cuſtom imbibed in their infancy, they prefer bollos to wheat bread, and eat honey with caſava.

They alſo make, of the flour of maize, ſeveral kinds of paſtry, and a variety of foods equally palatable and wholeſome; bollo itſelf being never known to diſagree with thoſe who uſe it.

* Or cake made of mandioc yams, and ſweet potatoes (or camiotes), which they grate and mix together. The bollo is far from inſipid, when a proper quantity of the camiote is put in. A.

Beſides

Beſides theſe roots, the ſoil produces plenty of camiotes, reſembling, in taſte, Malaga potatoes; but ſomething different in ſhape, the camiotes being generally roundiſh and uneven. They are both pickled and uſed as roots with the meat; but, conſidering the goodneſs and plenty of this root, they do not improve it as they might.

Plantations of ſugar-canes abound to ſuch a degree, as extremely to lower the price of honey: and a great part of the juice of theſe canes is converted into ſpirit for the diſpoſing of it. They grow ſo quick as to be cut twice in a year. The variety of their verdure is a beautiful ornament to the country.

Here are alſo great numbers of cotton-trees, ſome planted and cultivated, and theſe are the beſt; others ſpontaneouſly produced by the great fertility of the country. The cotton of both is ſpun, and made into ſeveral ſorts of ſtuffs, which are worn by the Negroes of the Haciendas, and the country Indians.

Cacao trees alſo grow in great plenty on the banks of the river Magdalena, and in other ſituations which that tree delights in; but thoſe in the juriſdiction of Carthagena excel thoſe of the Caracas, Maracaybo, Guayaquil, and other parts, both in ſize and the goodneſs of the fruit. The Carthagena cacao or chocolate is little known in Spain, being only ſent as preſents; for, as it is more eſteemed than that of other countries, the greater part of it is conſumed in this juriſdiction, or ſent to other parts of America. It is alſo imported from the Caracas, and ſent up the country, that of the Magdalena not being ſufficient to anſwer the great demand there is for it in theſe parts. Nor is it amiſs to mix the former with the latter, as correcting the extreme oilineſs of the chocolate, when made only with the cacao of the Magdalena. The latter, by way of diſtinction from the former, is ſold at Carthagena by millares, whereas the former is diſpoſed of by the buſhel, each weighing one hundred and ten pounds; but that of Maracaybo weighs only ninety-ſix pounds. This is the moſt valuable treaſure which Nature could have beſtowed on this country; though it has carried its bounty ſtill farther, in adding a vaſt number of delicious fruits which evidently diſplay the exuberance of the ſoil. Nothing ſtrikes a ſpectator with greater admiration, than to ſee ſuch a variety of pompous trees, in a manner emulating each other, through the whole year, in producing the moſt beautiful and delicious fruits. Some reſemble thoſe of Spain; others are peculiar to the country. Among the former, ſome are indeed cultivated, the latter flouriſh ſpontaneouſly.

Thoſe of the ſame kind with the Spaniſh fruits are melons, water-melons, called by the natives Blanciac, grapes, oranges, medlars, and dates. The grapes are not equal to thoſe of Spain; but the medlars as far exceed them: with regard to the reſt, there is no great difference.

Among the fruits peculiar to the country, the preference, doubtleſs, belongs to the pine-apple; and accordingly its beauty, ſmell, and taſte, have acquired it the appellation of queen of fruits. The others are the papayas, guanabanas, guayabas, ſapotes, mameis, platanos, cocos, and many others, which it would be tedious to enumerate, eſpecially as theſe are the principal; and, therefore, it will be ſufficient to confine our deſcriptions to them.

The ananas or pine-apple, ſo called from its reſembling the fruit or the cones of the European pine-tree, is produced by a plant nearly reſembling the aloe, except that the leaves of the pine-apple are longer, but not ſo thick, and moſt of them ſtand near the ground in a horizontal poſition; but as they approach nearer the fruit, they diminiſh in length, and become leſs expanded. This plant ſeldom grows to above three feet in height, and terminates in a flower reſembling a lily, but of ſo elegant a crimſon, as even to dazzle the eye. The pine-apple makes its firſt appearance in the centre of the

flower, about the ſize of a nut; and as this increaſes, the luſtre of the flower fades, and the leaves expand themſelves to make room for it, and ſecure it both as a baſe and ornament. On the top of the apple itſelf, is a crown or tuft of leaves, like thoſe of the plant, and of a very lively green. This crown grows in proportion with the fruit, till both have attained their utmoſt magnitude, and hitherto they differ very little in colour. But as ſoon as the crown ceaſes to grow, the fruit begins to ripen, and its green changes to a bright ſtraw colour: during this gradual alteration of colour, the fruit exhales ſuch a fragrancy as diſcovers it, though concealed from ſight. While it continues to grow, it ſhoots forth on all ſides little thorns, which, as it approaches towards maturity, dry and ſoften, ſo that the fruit is gathered without the leaſt inconvenience. The ſingularities which concentre in this product of nature, cannot fail of ſtriking a contemplative mind with admiration. The crown, which was to it a kind of apex, while growing in the woods, becomes itſelf, when ſown, a new plant; and the ſtem, after the fruit is cut, dies away, as if ſatisfied with having anſwered the intention of nature in ſuch a product; but the roots ſhoot forth freſh ſtalks, for the further increaſe of ſo valuable a ſpecies.

The pine-apple, though ſeparated from the plant, retains its fragrancy for a conſiderable time, when it begins to decay. The odour of it not only fills the apartment where the fruit is kept, but even extends to the contiguous rooms. The general length of this delicious fruit is from five to ſeven inches, and the diameter near its baſis three or four, diminiſhing regularly, as it approaches to its apex. For eating, it is peeled and cut into round ſlices, and is ſo full of juice, that it entirely diſſolves in the mouth. Its flavour is ſweet, blended with a delightful acidity. The rind, infuſed in water, after a proper fermentation, produces a very cooling liquor, and ſtill retains all the properties of the fruit.

The other fruits of this country are equally valuable in their ſeveral kinds; and ſome of them alſo diſtinguiſhed for their fragrancy, as the guayaba, which is, beſides, both pectoral and aſtringent.

The moſt common of all are, the platanos, the name of which, if not its figure and taſte, is known in all parts of Europe *. Theſe are of three kinds. The firſt is the banana, which is ſo large as to want but little of a foot in length. Theſe are greatly uſed, being not only eaten as bread, but alſo an ingredient in many made diſhes. Both the ſtone and kernel are very hard; but the latter has no noxious quality. The ſecond kind are the dominicos, which are neither ſo long nor ſo large as the bananas, but of a better taſte; they are uſed as the former.

The third kind are the guineos, leſs than either of the former, but far more palatable, though not reckoned ſo wholeſome by the natives, on account of their ſuppoſed heat. They ſeldom exceed four inches in length; and their rind, when ripe, is yellower, ſmoother, and brighter, than that of the two other kinds. The cuſtom of the country is to drink water after eating them; but the European ſailors, who will not be confined in their diet, but drink brandy with every thing they eat, make no difference between this fruit and any other; and to this intemperance may, in ſome meaſure, be attributed the many diſeaſes with which they are attacked in this country, and not a few ſudden deaths; which are, indeed, apt to raiſe, in the ſurvivors, concern for their companions for the

* The plantane and banana are, I believe, little known in Europe by name. The firſt two ſorts the Author deſcribes, are better known by the names of the long and ſhort plantane, and the laſt by the name of banana, than by thoſe he has given them. They have neither ſtone nor kernel, but a very ſmall ſeed, as ſmall as that of thyme, which lies in the fruit in rows like that of a cucumber, to which the banana bears the greateſt reſemblance of any thing in England; only it is ſmooth, and not ſo large. A.

preſent; but they ſoon return to the ſame exceſſes, not remembering, or rather chooſing to forget, the melancholy conſequences.

By what we could diſcover, it is not the quality of the brandy which proves ſo pernicious, but the quantity; ſome of our company making the experiment of drinking ſparingly of this liquor after eating the guineos, and repeating it ſeveral times without the leaſt inconvenience. One method of dreſſing them, among ſeveral others, is to roaſt them in their rind, and afterwards ſlice them, adding a little brandy and ſugar to give them a firmneſs. In this manner we had them every day at our table, and the Creoles themſelves approved of them.

The papayas are from ſix to eight inches in length, and reſemble a lemon, except that, towards the ſtalk, they are ſomewhat leſs than at the other extremity. Their rind is green, the pulp white, very juicy, but ſtringy, and the taſte a gentle acid, not pungent. This is the fruit of a tree, and not, like the pine-apple and platano, the product of a plant. The guayaba, and the following, are alſo the fruit of trees.

The guanabana approaches very near the melon, but its rind is much ſmoother, and of a greeniſh colour. Its pulp is of a yellowiſh caſt, like that of ſome melons, and not very different in taſte. But the greateſt diſtinction between theſe two fruits is a nauſeous ſmell in the guanaba. The ſeed is round, of a ſhining dark colour, and about two lines in diameter. It conſiſts of a very fine tranſparent pellicle, and a kernel ſolid and juicy. The ſmell of this little ſeed is much ſtronger and more nauſeous. The natives ſay, that, by eating this ſeed, nothing is to be apprehended from the fruit, which is otherwiſe accounted heavy and hard of digeſtion; but, though the ſeed has no ill taſte, the ſtomach is offended at its ſmell.

The ſapotes are round, about two inches in circumference, the rind thin and eaſily ſeparated from the fruit; the colour brown, ſtreaked with red. The fleſh is of a bright red, with little juice, viſcid, fibrous, and compact. It cannot be claſſed among delicious fruits, though its taſte is not diſagreeable. It contains a few ſeeds, which are hard and oblong.

The mameis are of the ſame colour with the ſapotes, except that the brown is ſomething lighter. Their rind alſo requires the aſſiſtance of a knife, to ſeparate it. The fruit is very much like the brunion plum, but more ſolid, leſs juicy, and, in colour, more lively. The ſtone is proportioned to the largeneſs of the fruit, which is betwixt three and four inches in diameter, almoſt circular, but with ſome irregularities. The ſtone is an inch and a half in length, and its breadth, in the middle, where it is round, one inch. Its external ſurface is ſmooth, and of a brown colour, except on one ſide, where it is vertically croſſed by a ſtreak reſembling the ſlice of a melon in colour and ſhape. This ſtreak has neither the hardneſs nor ſmoothneſs of the reſt of the ſurface of the ſtone, which ſeems in this place covered, and ſomething ſcabrous.

The coco is a very common fruit, and but little eſteemed; all the uſe made of it being to drink the juice whilſt fluid, before it begins to curdle. It is, when firſt gathered, full of a whitiſh liquor, as fluid as water, very pleaſant and refreſhing. The ſhell which covers the cocoa nut, is green on the outſide, and white within; full of ſtrong fibres, traverſing it on all ſides in a longitudinal direction, but eaſily ſeparated with a knife. The coco is alſo whitiſh at that time, and not hard; but, as the conſiſtency of its pulp increaſes, the green colour of its ſhell degenerates into yellow. As ſoon as the kernel has attained its maturity, this dries and changes to brown; then becomes fibrous and ſo compact, as not to be eaſily opened and ſeparated from the coco,

to which ſome of thoſe fibres adhere. From the pulp of theſe cocos is drawn a milk like that of almonds, and, at Carthagena, is uſed in dreſſing rice.

Though lemons, of the kind generally known in Europe, and of which ſuch quantities are gathered in ſome parts of Spain, are very ſcarce; yet there are ſuch numbers of another kind, called futiles or limes, that the country is, in a manner, covered with the trees that produce them, without care or culture. But the tree and its fruit are both much leſs than thoſe of Spain, the height of the former ſeldom exceeding eight or ten feet; and from the bottom, or a little above, divides into ſeveral branches, whoſe regular expanſion forms a very beautiful tuft. The leaf, which is of the ſame ſhape with that of the European lemon, is leſs, but ſmoother; the fruit does not exceed a common egg in magnitude; the rind very thin; and it is more juicy, in proportion, than the lemon of Europe, and infinitely more pungent and acid; on which account, the European phyſicians pronounce it detrimental to health; though, in this country, it is a general ingredient in their made diſhes. There is one ſingular uſe to which this fruit is applied in cookery. It is a cuſtom with the inhabitants not to lay their meat down to the fire above an hour at fartheſt, before dinner or ſupper; this is managed by ſteeping it for ſome time in the juice of theſe limes, or ſqueezing three or four, according to the quantity of meat, into the water, if they intend boiling; by which means, the fleſh becomes ſo ſoftened, as to admit of being thoroughly dreſſed in this ſhort ſpace. The people here value themſelves highly on this preparative, and laugh at the Europeans for ſpending a morning about what they diſpatch ſo expeditiouſly.

This country abounds in tamarinds; a large branchy tree, the leaf of a deep green; the pods of a middle ſize, and flat; the pulp of a dark brown, a pleaſant taſte, very fibrous, and is called by the ſame name as the tree itſelf. In the middle of the pulp is a hard ſeed, or ſtone, ſix or eight lines in length, to two in breadth. Its taſte is an acid ſweetneſs, but the acid predominates; and it is only uſed when diſſolved in water as a cooling liquor, and then but moderately, and not for many days ſucceſſively; its acidity and extreme coldneſs weakening and debilitating the ſtomach.

Another fruit, called mani, is produced by a ſmall plant. It is of the ſize and ſhape of a pine-cone; and eaten either roaſted, or as a conſerve. Its quality is directly oppoſite to that of the former, being hot in the higheſt degree; and, conſequently, not very wholeſome in this climate.

The products which are not natural here, beſides wheat, barley, and other grain, are grapes, almonds, and olives: conſequently the country is deſtitute of wine, oil, and raiſins, with which they are ſupplied from Europe: this neceſſarily renders them very dear; ſometimes they are not to be had at any price. When this is the caſe with regard to wine, great numbers ſuffer in their health; for, as all thoſe who do not accuſtom themſelves to drink brandy at their meals, which are far the greater number, except the Negroes, being uſed to this wine, their ſtomach, for want of it, loſes their digeſtive faculty, and thence are produced epidemical diſtempers. This was an unhappy circumſtance at our arrival, when wine was ſo extremely ſcarce, that maſs was ſaid only in one church.

The want of oil is much more tolerable; for, in dreſſing either fiſh or fleſh, they uſe hog's lard, of which they have ſo great a quantity, as to make it an ingredient in their ſoup, which is very good, and, conſidering the country, not at all dear: inſtead of lamps too, they uſe tallow candles: ſo that they want oil only for their ſalads.

From ſuch plenty of fleſh, fowl, and fruits, an idea may be formed of the luxuriancy of the tables in this country; and, indeed, in the houſes of perſons of wealth and diſtinction, they are ſerved with the greateſt decency and ſplendour. Moſt of the diſhes

are dreſſed in the manner of this country, and differ conſiderably from thoſe of Spain; but ſome of them are ſo delicate, that foreigners are no leſs pleaſed with them, than the gentlemen of the country. One of their favourite diſhes is the agi-aco, there being ſcarcely a genteel table without it. It is a mixture of ſeveral ingredients, which cannot fail of making an excellent ragout. It conſiſts of pork fried, birds of ſeveral kinds, plantanes, maize paſte, and ſeveral other things highly ſeaſoned with what they call pimento, or aji.

The inhabitants of any figure generally make two meals a-day, beſides another light repaſt. That in the morning, their breakfaſt, is generally compoſed of ſome fried diſh, paſtry of maize flour, and things of that nature, followed by chocolate. Their dinner conſiſts of a much greater variety; but at night the regale is only of ſweetmeats and chocolate. Some families, indeed, affect the European cuſtom of having regular ſuppers, though they are generally looked upon at Carthagena as detrimental to health. We found, however, no difference as to ourſelves; and, poſſibly, the ill effects flow from exceſs in the other meals.

CHAP. IX. — *Of the Trade of Carthagena, and other Countries of America, on the Arrival of the Galleons and other Spaniſh Ships.*

THE bay of Carthagena is the firſt place in America at which the galleons are allowed to touch; and thus it enjoys the firſt fruits of commerce, by the public ſales made there. Theſe ſales, though not accompanied with the formalities obſerved at Porto Bello fair, are very conſiderable. The traders of the inland provinces of Santa Fe, Popayan, and Quito, lay out not only their own ſtocks, but alſo the monies intruſted to them by commiſſions, for ſeveral ſorts of goods, and thoſe ſpecies of proviſions which are moſt wanted in their reſpective countries. The two provinces of Santa Fe and Popayan have no other way of ſupplying themſelves with the latter, than from Carthagena. Their traders bring gold and ſilver in ſpecie, ingots, and duſt, and alſo emeralds; as, beſides the ſilver mines worked at Santa Fe, and which daily increaſe by freſh diſcoveries, there are others which yield the fineſt emeralds. But the value of theſe gems being now fallen in Europe, and particularly in Spain, the trade of them, formerly ſo conſiderable, is now greatly leſſened, and, conſequently, the reward for finding them. All theſe mines produce great quantities of gold, which is carried to Choco, and there pays one-fifth to the King, at an office erected for that purpoſe.

This commerce was for ſome years prohibited, at the ſolicitation of the merchants of Lima, who complained of the great damages they ſuſtained by the tranſportation of European merchandiſes from Quito to Peru; which being thus furniſhed, while the traders of Lima were employed at the fairs of Panama and Porto Bello, at their return, they found, to their great loſs, the price of goods very much lowered. But it being afterwards conſidered, that reſtraining the merchants of Quito and other places from purchaſing goods at Carthagena, on the arrival of the galleons, was of great detriment to thoſe provinces, it was ordered, in regard to both parties, that, on notice being given in thoſe provinces, of the arrival of the galleons at Carthagena, all commerce, with regard to European commodities, ſhould ceaſe between Quito and Lima, and that the limits of the two audiences ſhould be thoſe of their commerce: that is, that Quito ſhould not trade beyond the territories of Loja and Zamora; nor Lima, beyond thoſe of Piura, one of the juriſdictions of its audience. By this equitable expedient, thoſe provinces were, in time, ſupplied with the goods they wanted, without any detriment

to the trade of Peru. This regulation was firſt executed in 1730, on the arrival of the ſquadron commanded by Don Manuel Lopez Pintado, who had orders, from the King, to place commerce on this footing, provided it bid fair to anſwer the intentions of both parties, and that no better expedient could be found. Accordingly this was carried into execution; being not only well adapted to the principal end, but alſo, during the ſtay of the galleons at Carthagena, procured buſineſs for the Cargadores *, in the ſale of their goods; and thus made them ample amends for their expences.

During the prohibition, the merchants of Carthagena were obliged to have recourſe to the flotilla of Peru, in their courſe from Guayaquil to Panama; or to wait the return of the galleons to Carthagena, and, conſequently, purchaſe only the refuſe of Porto Bello fair; both which were, doubtleſs, conſiderable grievances to them. If they purſued the firſt, they were obliged to travel acroſs the whole juriſdiction of Santa Fe to Guayaquil, which was a journey of above four hundred leagues, with conſiderable ſums of money, which having diſpoſed of in merchandiſes, the charges of their return were ſtill greater. In fine, the loſſes inevitable in ſuch a long journey, where rapid rivers, mountains, and bridges, were to be croſſed, and their merchandiſes expoſed to a thouſand accidents, rendered this method utterly impracticable; ſo that they were obliged to content themſelves with the remains of the fair; though it was very uncertain whether theſe would be ſufficient to anſwer the demand. Beſides, the inland merchants ran the hazard of not meeting at Carthagena with goods ſufficient, in quality and quantity, to anſwer their charges; and were ſometimes actually obliged to return with the money, and the vexation of a fruitleſs, though expenſive, journey. Theſe inconveniences produced a repeal of the prohibition, and commerce was placed on the preſent equitable footing.

This little fair at Carthagena, for ſo it may be called, occaſions a great quantity of ſhops to be opened, and filled with all kinds of merchandiſe; the profit partly reſulting to Spaniards who come in the galleons, and are either recommended to, or are in partnerſhip with, the Cargadores; and partly to thoſe already ſettled in that city. The Cargadores furniſh the former with goods, though to no great value, in order to gain their cuſtom; and the latter, as perſons whom they have already experienced to be good men; and both in proportion to the quickneſs of their ſale. This is a time of univerſal profit; to ſome by letting lodgings and ſhops, to ſome by the increaſe of their reſpective trades, and to others by the labour of their Negro ſlaves, whoſe pay alſo is proportionally increaſed, as they do more work in this buſy time. By this briſk circulation through all the ſeveral ranks, they frequently get a ſurplus of money beyond what is ſufficient for providing themſelves with neceſſaries. And it is not uncommon for ſlaves, out of their ſavings, and after paying their maſters the daily tribute, to purchaſe their freedoms.

This affluence extends to the neighbouring villages, eſtancias, and the moſt wretched chacaras, of this juriſdiction; for, by the increaſe of ſtrangers to a fourth, third, and ſometimes one-half, of the uſual number of people, the conſumption, and conſequently the price of proviſions, advances, which is, of courſe, no ſmall advantage to thoſe who bring them to market.

This commercial tumult laſts while the galleons continue in the bay; for they are no ſooner gone, than ſilence and tranquillity reſume their former place. This the inhabitants of Carthagena call Tiempo muerto, the dead time; for, with regard to the trade carried on with the other governments, it is not worth notice. The greater part of it

* Perſons who bring European goods for ſale.

conſiſts

conſiſts in ſome bilanders from La Trinidad, the Havannah, and St. Domingo, bringing leaf-tobacco, ſnuff, and ſugars; and returning with Magdalena cacao, earthen-ware, rice, and other goods wanted in thoſe iſlands: and even of theſe ſmall veſſels, ſcarcely one is ſeen for two or three months. The ſame may be ſaid of thoſe which go from Carthagena to Nicaragua, Vera Cruz, Honduras, and other parts: but the moſt frequent trips are made to Porto Bello, Chagra, or Santa Martha. The reaſon why this commerce is not carried on more briſkly is, that moſt of theſe places are naturally provided with the ſame kind of proviſions, and conſequently are under no neceſſity of trafficking with each other.

Another branch of the commerce of Carthagena, during the tiempo muerto, is carried on with the towns and villages of its juriſdiction, from whence are brought all kinds of neceſſaries, and even the luxuries of life, as maize, rice, cotton, live hogs, tobacco, plantanes, birds, caſava, ſugar, honey, and cacao, moſt of which is brought in canoes and champanas, a ſort of boats proper for rivers. The former are a kind of coaſters, and the latter come from the rivers Magdalena, Sinu, and others. Their returns conſiſt of goods for apparel, with which the ſhops and warehouſes furniſh themſelves from the galleons, or from prizes taken on the coaſt by the King's frigates, or privateers.

No eatable pays any duty to the King; and every perſon may, in his own houſe, kill any number of pigs he thinks he ſhall ſell that day: no ſalted pork is eaten, becauſe it is ſoon corrupted by the exceſſive heat of the place. All imports from Spain, as brandy, wine, oil, almonds, raiſins, pay a duty, and are afterwards ſold without any farther charge, except what is paid by retailers, as a tax for their ſhop or ſtall.

Beſides theſe goods, which keep alive this ſlender inland commerce, here is an office for the aſſiento of Negroes, whither they are brought, and, as it were, kept as pledges, till ſuch perſons as want them on their eſtates come to purchaſe them, negroes being generally employed in huſbandry and other laborious country works. This, indeed, gives ſome life to the trade of Carthagena, though it is no weighty article. The produce of the royal revenues in this city not being ſufficient to pay and ſupport the governor, garriſon, and a great number of other officers, the deficiency is remitted from the treaſurers of Santa Fé and Quito, under the name of Situado, together with ſuch monies as are requiſite for keeping up the fortifications, furniſhing the artillery, and other expences, neceſſary for the defence of the place and its forts.

BOOK II.

Voyage from Carthagena to Porto Bello.

CHAP. I. — *General Winds and Currents between Carthagena and Porto Bello.*

WHEN the French frigate had watered, and was ready for ſailing, we embarked on board her, on the 24th of November 1735; the next day we put to ſea, and on the 29th of the ſame month, at half an hour after five in the evening, came to an anchor

at the mouth of Porto Bello harbour, in fourteen fathom water; Caſtle Todo Fierro, or the iron caſtle, bearing north-eaſt four degrees northerly; and the ſouth point of the harbour eaſt one quarter northerly. The difference of longitude between Carthagena and Punta de Nave, we found to be 4° 24′.

We had ſteered weſt-north-weſt and weſt one quarter northerly, till the ſhip was obſerved to be in the eleventh degree of latitude, when we ſtood to the weſt. But when our difference of longitude from Carthagena was 3° 10′, we altered our courſe to ſouth-weſt and ſouth, a quarter weſterly, which, as already obſerved, on the 29th of November, at five in the evening, brought us in ſight of Punta de Nave, which being ſouth of us, we were obliged to make ſeveral tacks before we could get into the harbour.

In this paſſage we met with freſh gales. The two firſt days at north quarter eaſterly, and the other days till we made the land at north-eaſt, a high ſea running the whole time. But we were no ſooner in ſight of Punta de Nave, than it became calm, and a breeze from the land ſprung up, which hindered us from getting that day into the harbour. It alſo continued contrary on the 30th; but, by the help of our oars, and being towed, we got at laſt to the anchoring-place, where we went on ſhore, with our baggage and inſtruments neceſſary for beginning our obſervations. But this being the moſt proper place for mentioning the winds which prevail in this paſſage along the coaſt, and that of Carthagena, we ſhall beſtow ſome paragraphs on them.

There are two ſorts of general winds on theſe coaſts; the one called Briſas, which blow from the north-eaſt, and the other called Vendabales, which come from the weſt, and weſt-ſouth-weſt. The former ſet in about the middle of November, but are not ſettled till the beginning or middle of December, which is here the ſummer, and continue blowing freſh and invariable till the middle of May; they then ceaſe, and are ſucceeded by the vendabales, but with this difference, that theſe do not extend farther than 12 or 12½ degrees of latitude, beyond which the briſas conſtantly reign, though with different degrees of ſtrength, and veer ſometimes to the eaſt, and at other times to the north.

The ſeaſon of the vendabales is attended with violent ſtorms of wind and rain; but they are ſoon over, and ſucceeded by a calm equally tranſitory; for the wind gradually freſhens, eſpecially near the land, where theſe phenoma are more frequent. The ſame happens at the end of October and beginning of November, the general winds not being ſettled.

In the ſeaſon of the briſas, the currents, as far as 12° or 12° 30′ of latitude, ſet to the weſtward, but with leſs velocity than uſual at the changes of the moon, and greater at the full. But beyond that latitude they uſually ſet north-weſt. Though this muſt not be underſtood without exception; as, for inſtance, near iſlands or ſhoals, their courſe becomes irregular: ſometimes they flow through long channels, and ſometimes they are met by others; all which proceeds from their ſeveral directions, and the bearings of the coaſts; ſo that the greateſt attention is neceſſary here, the general accounts not being ſufficient to be relied on; for, though they have been given by pilots who have for twenty or thirty years uſed this navigation, in all kinds of veſſels, and therefore have acquired a thorough knowledge, they themſelves confeſs that there are places where the currents obſerve no kind of regularity, like thoſe we have mentioned.

When the briſas draw near their period, which is about the beginning of April, the currents change their courſe, running to the eaſtward for eight, ten, or twelve leagues from the coaſt, and thus continue during the whole ſeaſon of the vendabales; on which account, and the winds being at this ſeaſon contrary for going from Carthagena to Porto Bello, it is neceſſary to ſail to twelve or thirteen degrees of latitude, or

even

even ſometimes farther; when being without the verge of thoſe winds, the voyage is eaſily performed.

While the briſas blow ſtrongeſt, a very impetuous current ſets into the gulf of Darien, and out of it during the ſeaſon of the vendabales. This ſecond change proceeds from the many rivers which diſcharge themſelves into it, and at that time being greatly ſwelled by the heavy rains, peculiar to the ſeaſon; ſo that they come down with ſuch rapidity, as violently to propel the water out of the gulf. But in the ſeaſon of the briſas theſe rivers are low, and ſo weak, that the current of the ſea overcomes their reſiſtance, fills the gulf, and returns along the windings of the coaſt.

CHAP. II. — *Deſcription of the Town of St. Philip de Porto Bello.*

THE town of St. Philip de Porto Bello, according to our obſervations, ſtands in 9° 34′ 35″ north latitude; and by the obſervations of Father Feuillée, in the longitude of 277° 50′ from the meridian of Paris, and 296° 41′ from the Pico of Teneriffe. This harbour was diſcovered on the 2d of November 1502 by Chriſtopher Columbus, who was ſo charmed with its extent, depth, and ſecurity, that he gave it the name of Porto Bello, or the fine harbour. In the proſecution of his diſcoveries, he arrived at that which he called Baſtimentos, where, in 1510, was founded by Diego de Niqueza the city of Nombre de Dios, "the Name of God;" ſo called from the commander having ſaid to his people on their landing, "Here we will make a ſettlement in the name of God," which was accordingly executed. But this place was in its infancy entirely deſtroyed by the Indians of Darien. Some years after, the ſettlement was repaired, and the inhabitants maintained their ground till 1584, when orders arrived from Philip II. for their removing to Porto Bello, as much better ſituated for the commerce of that country.

Porto Bello was taken and plundered by John Morgan, an Engliſh adventurer, who infeſted thoſe ſeas; but in conſideration of a ranſom, he ſpared the forts and houſes.

The town of Porto Bello ſtands near the ſea, on the declivity of a mountain which ſurrounds the whole harbour. Moſt of the houſes are built of wood. In ſome the firſt ſtory is of ſtone, and the remainder of wood. They are about one hundred and thirty in number; moſt of them large and ſpacious. The town is under the juriſdiction of a governor, with the title of lieutenant-general; being ſuch under the preſident of Panama, and the term of his poſt is without any ſpecified limitation. He is always a gentleman of the army, having under him the commandants of the forts that defend the harbour; whoſe employments are for life.

It conſiſts of one principal ſtreet, extending along the ſtrand, with other ſmaller croſſing it, and running from the declivity of the mountain to the ſhore, together with ſome lanes, in the ſame direction with the principal ſtreet, where the ground admits of it. Here are two large ſquares, one oppoſite to the cuſtom-houſe, which is a ſtructure of ſtone, contiguous to the quay; the other oppoſite the great church, which is of ſtone, large, and decently ornamented, conſidering the ſmallneſs of the place. It is ſerved by a vicar and other prieſts, natives of the country.

Here are two other churches, one called Nueſtra Signora de la Merced, with a convent of the ſame order; the other St. Juan de Dios; which, though it bears the title of an hoſpital, and was founded as ſuch, is very far from being ſo in reality. The church of La Merced is of ſtone, but mean and ruinous, like the convent, which is

alſo decayed: ſo that wanting the proper conveniences for the religious to reſide in, they live in the town diſperſed in private houſes.

That of St. Juan de Dios is only a ſmall building like an oratory, and not in better condition than that of La Merced. Its whole community conſiſts of a prior, chaplain, and another religious, and ſometimes even of leſs: ſo that its extent is very ſmall, ſince properly ſpeaking, it has no community: and the apartments intended for the reception of patients conſiſts only of one chamber, open to the roof, without beds or other neceſſaries. Nor are any admitted but ſuch as are able to pay for their treatment and diet. It is therefore of no advantage to the poor of the place; but ſerves for lodging ſick men belonging to the men of war which come hither, being provided with neceſſaries from the ſhips, and attended by their reſpective ſurgeons, lodging-room being the only thing afforded them by this nominal hoſpital.

At the eaſt end of the town, which is the road to Panama, is a quarter called Guiney, being the place where all the negroes of both ſexes, whether ſlaves or free, have their habitations. This quarter is very much crowded when the galleons are here, moſt of the inhabitants of the town entirely quitting their houſes for the advantage of letting them, while others content themſelves with a ſmall part in order to make money of the reſt. The mulattos and other poor families alſo remove, either to Guiney, or to cottages already erected near it, or built on this occaſion. Great numbers of artificers from Panama likewiſe, who flock to Porto Bello to work at their reſpective callings, lodge in this quarter for cheapneſs.

Towards the ſea, in a large track between the town and Gloria caſtle, barracks are alſo erected, and principally filled with the ſhips' crews; who keep ſtalls of ſweetmeats, and other kinds of eatables brought from Spain. But at the concluſion of the fair, the ſhips put to ſea, and all theſe buildings are taken down, and the town returns to its former tranquillity and emptineſs.

By an experiment we made with the barometer in a place a toiſe above the level of the ſea, the height of the mercury was twenty-ſeven inches eleven lines and a half.

CHAP. III. — *Deſcription of Porto Bello Harbour.*

THE name of this port indicates its being commodious for all ſorts of ſhips or veſſels, great or ſmall; and though its entrance is very wide, it is well defended by Fort St. Philip de Todo Fierro. It ſtands on the north point of the entrance, which is about ſix hundred toiſes broad, that is, a little leſs than the fourth part of a league; and the ſouth ſide being full of riſes of rocks, extending to ſome diſtance from the ſhore, a ſhip is obliged to ſtand to the north, though the deepeſt part of the channel is in the middle of the entrance, and thus continues in a ſtraight direction, having nine, ten, or fifteen fathom water, and a bottom of clayey mud, mixed with chalk and ſand.

On the ſouth ſide of the harbour, and oppoſite to the anchoring-place, is a large caſtle, called Saint Jago de la Gloria, to the eaſt of which, at the diſtance of about one hundred toiſes, begins the town, having before it a point of land projecting into the harbour. On this point ſtood a ſmall fort called St. Jerome, within ten toiſes of the houſes. All theſe were demoliſhed by the Engliſh admiral Vernon, who with a numerous naval force * in 1739, made himſelf maſter of this port; having found it

* The numerous naval force mentioned by our author, conſiſted we know of ſix ſhips only.

ſo

ſo unprovided with every thing, that the greater part of the artillery, eſpecially that of the caſtle de Todo Fierro, or iron caſtle, was diſmounted for want of carriages, part of the few military ſtores unſerviceable, and the garriſon ſhort of its complement even in time of peace. The governor of the city, Don Bernardo Gutierrez de Bocanegra, was alſo abſent at Panama, on ſome accuſation brought againſt him. Thus the Engliſh meeting no reſiſtance, eaſily ſucceeded in their deſign upon this city, which ſurrendered by capitulation.

The anchoring-place for the large ſhips is north-weſt of Gloria caſtle, which is nearly the centre of the harbour; but leſſer veſſels which come farther up, muſt be careful to avoid a ſand-bank, lying one hundred and fifty toiſes from St. Jerome's fort, or point, bearing from it weſt one quarter northerly; and on which there is only a fathom and a half, or at moſt, two fathom water.

North-weſt of the town is a little bay, called la Caldera, or the kettle, having four fathom and a half water; and is a very proper place for careening ſhips and veſſels, as, beſides its depth, it is perfectly defended from all winds. In order to go into it, you muſt keep pretty cloſe to the weſtern ſhore till about a third part of the breadth of the entrance, where you will have five fathom water (whilſt on the eaſtern ſide of the ſame entrance, there is not above two or three feet), and then ſteer directly towards the bottom of the bay. When the ſhips are in, they may moor with four cables eaſt and weſt, in a ſmall baſon formed by the Caldera; but care muſt be taken to keep them always on the weſtern ſide.

North-eaſt of the town is the mouth of a river called Caſcajel, which affords no freſh water within a quarter of a league or upwards from its mouth; and it is not uncommon to ſee in it Caymanes, or alligators.

The tides are here irregular; and in this particular, as well as that of the winds, there is no difference between this harbour and that of Carthagena; except that here the ſhips muſt always be towed in, being either becalmed, or the wind directly againſt them.

From obſervations we made, both by the pole-ſtar and the ſun's azimuth, we found the variation of the needle in this harbour to be 8° 4′ eaſterly.

Among the mountains which ſurround the whole harbour of Porto Bello, beginning from St. Philip de Todo Fierro, or the iron caſtle (which is ſituated on their declivity), and without any decreaſe of height, extends to the oppoſite point, one is particularly remarkable for its ſuperior loftineſs, as if deſigned to be the barometer of the country, by foretelling every change of weather. This mountain, diſtinguiſhed by the name of Capiro, ſtands at the utmoſt extremity of the harbour, in the road to Panama. Its top is always covered with clouds of a denſity and darkneſs ſeldom ſeen in thoſe of this atmoſphere; and from theſe, which are called the capillo or cap, has poſſibly been corruptly formed the name of Monte Capiro. When theſe clouds thicken, increaſe their blackneſs, and ſink below their uſual ſtation, it is a ſure ſign of a tempeſt; while on the other hand, their clearneſs and aſcent as certainly indicate the approach of fair weather. It muſt however be remembered, that theſe changes are very frequent and very ſudden. It is alſo ſeldom that the ſummit is ever obſerved clear from clouds; and when this does happen, it is only as it were, for an inſtant.

The juriſdiction of the governor of Porto Bello is limited to the town and the forts; the neighbouring country, over which it might be extended, being full of mountains covered with impenetrable foreſts, except a few vallies, in which are thinly ſcattered ſome farms or Aaciendas; the nature of the country not admitting of farther improvements.

CHAP. IV. — *Of the Climate of Porto Bello, and the Diſtempers which prove ſo fatal to the Crews of the Galleons.*

THE inclemency of the climate of Porto Bello is ſufficiently known all over Europe. Not only ſtrangers who come thither are affected by it, but even the natives themſelves ſuffer in various manners. It deſtroys the vigour of nature, and often untimely cuts the thread of life. It is a current opinion, that formerly, and even not above twenty years ſince, parturition was here ſo dangerous, that it was ſeldom any women did not die in child-bed. As ſoon therefore as they had advanced three or four months in their pregnancy, they were ſent to Panama, where they continued till the danger of delivery was paſt. A few indeed had the firmneſs to wait their deſtiny in their own houſes; but much the greater number thought it more adviſable to undertake the journey, than to run ſo great a hazard of their lives.

The exceſſive love which a lady had for her huſband, blended with a dread that he would forget her during her abſence, his employment not permitting him to accompany her to Panama, determined her to ſet the firſt example of acting contrary to this general cuſtom. The reaſons for her fear were ſufficient to juſtify her reſolution to run the riſk of a probable danger, in order to avoid an evil which ſhe knew to be certain, and muſt have embittered the whole remainder of her life. The event was happy; ſhe was delivered, and recovered her former health; and the example of a lady of her rank did not fail of inſpiring others with the like courage, though not founded on the ſame reaſons; till, by degrees, the dread which former melancholy caſes had impreſſed on the mind, and gave occaſion to this climate's being conſidered as fatal to pregnant women, was entirely diſperſed.

Another opinion equally ſtrange is, that the animals from other climates, on their being brought to Porto Bello, ceaſe to procreate. The inhabitants bring inſtances of hens brought from Panama or Carthagena, which immediately on their arrival grew barren, and laid no more eggs; and even at this very time, the horned cattle ſent from Panama, after they have been here a ſhort time, loſe their fleſh ſo as not to be eatable; though they do not want for plenty of good paſture. It is certain, that there are no horſes or aſſes bred here, which tends to confirm the opinion that this climate checks the generation of creatures produced in a more benign or leſs noxious air. However, not to rely on the common opinion, we inquired of ſome intelligent perſons, who differed but very little from the vulgar, and even confirmed what they aſſerted, by many known facts, and experiments performed by themſelves.

The liquor in Mr. Reaumur's thermometer, on the 4th of December 1735, at ſix in the morning, ſtood at 1021, and at noon roſe to 1023.

The heat here is exceſſive, augmented by the ſituation of the town, which is ſurrounded by high mountains, without any interval for the winds, whereby it might be refreſhed. The trees on the mountains ſtand ſo thick, as to intercept the rays of the ſun; and, conſequently, hinder them from drying the earth under their branches: hence copious exhalations, which form large clouds, and precipitate in violent torrents of rain; theſe are no ſooner over, than the ſun breaks forth afreſh, and ſhines with its former ſplendour; though ſcarce has the activity of his rays dried the ſurface of the ground not covered by the trees, when the atmoſphere is again crowded by another collection of thick vapours, and the ſun again concealed. Thus it continues during the whole day: the night is ſubject to the like viciſſitudes; but without the leaſt diminution of heat in either.

Theſe

Theſe torrents of rain, which, by their ſuddenneſs and impetuoſity, ſeem to threaten a ſecond deluge, are accompanied with ſuch tempeſts of thunder and lightning, as muſt daunt even the moſt reſolute: this dreadful noiſe is prolonged by repercuſſions from the caverns of the mountains, like the exploſion of a cannon, the rumbling of which is heard for a minute after. To this may alſo be added the howlings and ſhrieks of the multitudes of monkies of all kinds, which live in the foreſts of the mountains, and which are never louder than when a man of war fires the morning and evening gun, though they are ſo much uſed to it.

This continual inclemency, added to the fatigue of the ſeamen in unloading the ſhips, carrying the goods on ſhore in barges, and afterwards drawing them along on ſledges, cauſes a very profuſe perſpiration, and, conſequently, renders them weak and faint; and they, in order to recruit their ſpirits, have recourſe to brandy, of which there is, on theſe occaſions, an incredible conſumption. The exceſſive labour, immoderate drinking, and the inclemency and the unhealthfulneſs of the climate, muſt jointly deſtroy the beſt conſtitutions, and produce thoſe deleterious diſeaſes ſo common in this country. They may well be termed deleterious; for the ſymptoms of all are fatal, the patients being too much attenuated to make any effectual reſiſtance; and hence epidemics and mortal diſtempers are ſo very common.

It is not the ſeamen alone who are ſubject to theſe diſeaſes; others, ſtrangers to the ſeas, and not concerned in the fatigues, are attacked by them; and, conſequently, is a ſufficient demonſtration that the other two are only collateral, though they tend both to ſpread and inflame the diſtemper; it being evident, that when the fluids are diſpoſed to receive the ſeeds of the diſtemper, its progreſs is more rapid, and its attacks more violent. On ſome occaſions, phyſicians have been ſent for from Carthagena, as being ſuppoſed to be better acquainted with the propereſt methods of curing the diſtempers of this country, and, conſequently, more able to recover the ſeamen; but experience has ſhewn, that this intention has been ſo little anſwered, that the galleons or other European ſhips, which ſtay any time here, ſeldom depart, without burying half, or, at leaſt, a third of their men; and hence this city has, with too much reaſon, been termed the grave of the Spaniards; but it may, with much greater propriety, be applied to thoſe of other nations who viſit it. This remark was ſufficiently confirmed by the havoc made among the Engliſh, when their fleet, in 1726, appeared before the port, with a view of making themſelves maſters of the treaſure brought thither from all parts to the fair held at the arrival of the galleons, which, at that time, by the death of the Marquis Grillo, were commanded by Don Franciſco Cornejo, one of thoſe great officers whoſe conduct and reſolution have done honour to the navy of Spain. He ordered the ſhips under his command to be moored in a line within the harbour; and erected, on the entrance, a battery, the care of which he committed to the officers of the ſhips: or rather, indeed, ſuperintended it himſelf, omitting no precaution, but viſiting every part in perſon. Theſe preparatives ſtruck ſuch a conſternation into the Engliſh fleet, though of conſiderable force, that, inſtead of making any attempt, they formed only a blockade, depending on being ſupplied with proviſions from Carthagena, and that famine would at length oblige the Spaniards to give up what they at firſt intended to acquire by force; but when the admiral thought himſelf on the point of obtaining his ends, the inclemency of the ſeaſon declared itſelf among his ſhips' companies, ſweeping away ſuch numbers, that in a ſhort time he was obliged to return to Jamaica, with the loſs of above half his people.

But, notwithſtanding the known inclemency of the climate of Porto Bello, and its general fatality to Europeans, the ſquadron of 1730 enjoyed there a good ſtate of health, though

though the fatigues and irregularities among the ſeamen were the ſame: nor was there any perceivable change in the air. This happy ſingularity was attributed to the ſtay of the ſquadron at Carthagena, where they paſſed the time of the epidemia, by which their conſtitutions were better adapted to this climate; and hence it appears, that the principal cauſe of theſe diſtempers flows from the conſtitutions of the Europeans not being uſed to it; and thus they either die, or become habituated to it, like the natives, Creoles, and other inhabitants.

CHAP. V. — *Account of the Inhabitants and Country about Porto Bello.*

IN ſeveral particulars there is no eſſential difference between Carthagena and Porto Bello; ſo that I ſhall only mention thoſe peculiar to the latter; and add ſome obſervations, tending to convey a more exact knowledge of this country.

The number of the inhabitants of Porto Bello, by reaſon of its ſmallneſs, and the inclemency of its climate, is very inconſiderable, and the greater part of theſe, Negroes and Mulattos, there being ſcarce thirty white families; thoſe, who by commerce or their eſtates are in eaſy circumſtances, removing to Panama. So that thoſe only ſtay at Porto Bello, whoſe employments oblige them to it; as the governor or lieutenant-general, the commanders of the forts, the civil officers of the crown, the officers and ſoldiers of the garriſons, the alcaldes in office and of the hermandad, and the town-clerk. During our ſtay here, the garriſons of the forts conſiſted of about one hundred and twenty-five men, being detachments from Panama; and theſe, though coming from a place ſo near, are affected to ſuch a degree, that in leſs than a month they are ſo attenuated, as to be unable to do any duty, till cuſtom again reſtores them to their ſtrength. None of theſe, or of the natives of the country, above the Mulatto claſs, ever ſettle here, thinking it a diſgrace to live in it: a certain proof of its unhealthineſs, ſince thoſe to whom it gave birth forſake it.

In manners and cuſtoms, the inhabitants of Porto Bello reſemble thoſe of Carthagena, except that the latter are more free and generous, thoſe in the parts round Porto Bello being accuſed of avarice; a vice natural to all the inhabitants of theſe countries.

Proviſions are ſcarce at Porto Bello, and conſequently dear, particularly during the time of the galleons and the fair, when there is a neceſſity for a ſupply from Carthagena and Panama. From the former are brought maize, rice, caſava, hogs, poultry, and roots; and from the latter, cattle. The only thing in plenty here is fiſh, of which there is great variety, and very good. It alſo abounds in ſugar-canes, ſo that the chacaras, or farm-houſes, if they may be ſo called, are built of them. They have alſo ingenios * for making ſugar and molaſſes, and, from the latter, brandy.

Freſh water pours down in ſtreams from the mountains, ſome running without the town, and others croſſing it. Theſe waters are very light and digeſtive, and, in thoſe who are uſed to them, good to create an appetite; qualities, which in other coun- would be very valuable, are here pernicious. This country ſeems ſo curſed by nature, tries that what is in itſelf good, becomes here deſtructive. For, doubtleſs, this water is too fine and active for the ſtomachs of the inhabitants; and thus produces dyſenteries, the laſt ſtage of all other diſtempers, and which the patient very ſeldom ſurvives. Theſe rivulets, in their deſcent from the mountains, form little reſervoirs, or ponds, whoſe coolneſs is increaſed by the ſhade of the trees, and in theſe all the inha-

* Ingenio ſignifies the mill, ſtill, and apparatus, for making ſugar, rum, &c. A.

bitants of the town bathe themſelves conſtantly every day at eleven in the morning; and the Europeans fail not to follow an example ſo pleaſant and conducive to health.

As theſe foreſts almoſt border on the houſes of the town, the tigers often make incurſions into the ſtreets during the night, carrying off fowls, dogs, and other domeſtic creatures; and ſometimes even boys have fallen a prey to them; and it is certain, that ravenous beaſts, which provide themſelves with food in this manner, are afterwards known to deſpiſe what the foreſts afford; and that, after taſting human fleſh, they ſlight that of beaſts *. Beſides the ſnares uſually laid for them, the Negroes and Mulattos, who fell wood in the foreſts of the mountains, are very dexterous in encountering the tigers; and ſome, even on account of the ſlender reward, ſeek them in their retreats. The arms in this combat, ſeemingly ſo dangerous, are only a lance, of two or three yards in length, made of a very ſtrong wood, with the point of the ſame hardened in the fire; and a kind of cimeter, about three quarters of a yard in length. Thus armed, they ſtay till the creature makes an aſſault on the left arm, which holds the lance, and is wrapped up in a ſhort cloak of baize. Sometimes the tiger, aware of the danger, ſeems to decline the combat; but his antagoniſt provokes him with a ſlight touch of the lance, in order, while he is defending himſelf, to ſtrike a ſure blow; for, as ſoon as the creature feels the lance, he graſps it with one of his paws, and with the other ſtrikes at the arm which holds it. Then it is that the perſon nimbly aims a blow with his cimeter, which he kept concealed with the other hand, and hamſtrings the creature, which immediately draws back enraged, but returns to the charge; when, receiving another ſuch ſtroke, he is totally deprived of his moſt dangerous weapons, and rendered incapable of moving. After which the perſon kills him at leiſure, and ſtripping off the ſkin, cutting off the head, and the fore and hind feet, returns to the town, diſplaying theſe as the trophies of his victory.

Among the great variety of animals in this country, one of the moſt remarkable is the Perico ligero, or nimble Peter, an ironical name given it on account of its extreme ſluggiſhneſs and ſloth. It reſembles a middling monkey, but of a wretched appearance, its ſkin being of a greyiſh brown, all over corrugated, and the legs and feet without hair. He is ſo lumpiſh, as not to ſtand in need of either chain or hutch, for he never ſtirs till compelled by hunger. When he moves, every effort is attended with ſuch a plaintive, and at the ſame time ſo diſagreeable a cry, as at once produces pity and diſguſt; and this even on the ſlighteſt motion of the head, legs, or feet; proceeding probably from a general contraction of the muſcles and nerves of his body, which puts him to extreme pain, when he endeavours to move them. In this diſagreeable cry conſiſts his whole defence; for, it being natural to him to fly at the firſt hoſtile approach of any beaſt, he makes at every motion ſuch howlings as are even inſupportable to his purſuer, who ſoon quits him, and even flies beyond the hearing of his horrid noiſe. Nor is it only during the time he is in motion that he utters theſe cries; he repeats them while he reſts himſelf, continuing a long time motionleſs before he takes another march. The food of this creature is generally wild fruits; when he can find none on the ground, he looks out for a tree well loaded, which, with a great deal of pains, he climbs; and, to ſave himſelf ſuch another toilſome aſcent, plucks off all the fruit, throwing them on the ground; and to avoid the pain of deſcending, forms himſelf into a ball, and drops from

* This is an error. Beaſts of prey in America are not ſo fierce as in Africa and Aſia; they never attack the human ſpecies, but when forced by hunger, or provoked. It is affirmed by the natives, that if an European, with his Negro and dog, were to meet with two hungry beaſts of prey, whether tigers or ounces, they would ſeize the dog and Negro, and leave the European. But the truth I never knew experienced. A.

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the branches. At the foot of this tree he continues till all the fruits are conſumed, never ſtirring till hunger forces him to ſeek again for food.

Serpents are here as numerous and deadly as at Carthagena; and toads * innumerable, ſwarming not only in the damp and marſhy places, as in other countries, but even in the ſtreets, courts of great houſes, and all open places in general. The great numbers of them, and their appearance after the leaſt ſhower, have induced ſome to imagine, that every drop of water becomes a toad; and though they allege, as a proof, the extraordinary increaſe of them on the ſmalleſt ſhower, their opinion does not ſeem to me to be well founded. It is evident, that theſe reptiles abound both in the foreſts and neighbouring rivers, and even in the town itſelf; and produce a prodigious quantity of animalcula, from whence, according to the beſt naturaliſts, theſe reptiles are formed. Theſe animacula either riſe in the vapours, which form the rain, and falling together with it on the ground, which is extremely heated by the rays of the ſun, or being already depoſited in it by the toads, grow, and become animated, in no leſs numbers than were formerly ſeen in Europe. But ſome of them which appear after rains being ſo large as to meaſure ſix inches in length, they cannot be imagined the effect of an inſtantaneous production; I am therefore inclined to think, from my own obſervations, that this part of the country being remarkably moiſt, is very well adapted to nouriſh the breed of thoſe creatures, which love watery places; and therefore avoid thoſe parts of the ground expoſed to the rays of the ſun, ſeeking others where the earth is ſoft, and there form themſelves cavities in the ground, to enjoy the moiſture; and as the ſurface over them is generally dry, the toads are not perceived; but no ſooner does it begin to rain, than they leave their retreats to come at the water, which is their ſupreme delight; and thus fill the ſtreets and open places. Hence the vulgar opinion had its riſe, that the drops of rain were transformed into toads. When it has rained in the night, the ſtreets and ſquares in the morning ſeem paved with theſe reptiles; ſo that you cannot ſtep without treading on them, which ſometimes is productive of troubleſome bites: for, beſides their poiſon, they are large enough for their teeth to be ſeverely felt. Some we have already obſerved to be ſix inches long, and this is their general meaſure; and there are ſuch numbers of them, that nothing can be imagined more diſmal than their croakings, during the night, in all parts of the town, woods, and caverns of the mountains.

CHAP. VI. — *Of the Trade of Porto Bello.*

THE town of Porto Bello, ſo thinly inhabited, by reaſon of its noxious air, the ſcarcity of proviſions, and the barrenneſs of its ſoil, becomes, at the time of the galleons, one of the moſt populous places in all South America. Its ſituation on the iſthmus, betwixt the South and North Sea, the goodneſs of its harbour, and its ſmall diſtance from Panama, have given it the preference for the rendezvous of the joint commerce of Spain and Peru, at its fair.

On advice being received at Carthagena, that the Peru fleet had unloaded at Panama, the galleons make the beſt of their way to Porto Bello, in order to avoid the diſtempers which have their ſource from idleneſs. The concourſe of people on this occaſion is ſuch as to raiſe the rent of lodging to an exceſſive degree; a middling chamber, with a cloſet,

* Called by the natives ſerpos: they appear every dewy evening in as great numbers as after a ſhower. I never heard of the opinion the author ſpeaks of. A.

lets, during the fair, for a thouſand crowns, and ſome large houſes for four, five, or ſix thouſand.

The ſhips are no ſooner moored in the harbour, than the firſt work is to erect in the ſquare a tent made of the ſhip's ſails, for receiving its cargo, at which the proprietors of the goods are preſent, in order to find their bales by the marks which diſtinguiſh them. Theſe bales are drawn on ſledges to their reſpective places by the crew of every ſhip, and the money given them is proportionally divided.

Whilſt the ſeamen and European traders are thus employed, the land is covered with droves of mules from Panama, each drove conſiſting of above an hundred, loaded with cheſts of gold and ſilver, on account of the merchants of Peru. Some unload them at the exchange, others in the middle of the ſquare; yet, amidſt the hurry and confuſion of ſuch crowds, no theft, loſs, or diſturbance is ever known. He who has ſeen this place during the tiempo muerto, or dead time, ſolitary, poor, and a perpetual ſilence reigning every where; the harbour quite empty, and every place wearing a melancholy aſpect, muſt be filled with aſtoniſhment at the ſudden change; to ſee the buſtling multitudes, every houſe crowded, the ſquare and ſtreets encumbered with bales and cheſts of gold and ſilver of all kinds; the harbour full of ſhips and veſſels, ſome bringing by the way of Rio de Chape the goods of Peru, as cacao, quinquina, or Jeſuits' bark, Vicuna wool and bezoar ſtones; others coming from Carthagena loaded with proviſions; and thus a ſpot at all other times deteſted for its deleterious qualities, becomes the ſtaple of the riches of the old and new world, and the ſcene of one of the moſt conſiderable branches of commerce in the whole earth.

The ſhips being unloaded, and the merchants of Peru, together with the preſident of Panama, arrived, the fair comes under deliberation. And for this purpoſe the deputies of the ſeveral parties repair on board the commodore of the galleons, where, in preſence of the commodore, and the preſident of Panama, the former as patron of the Europeans, and the latter, of the Peruvians, the prices of the ſeveral kinds of merchandiſes are ſettled; and all preliminaries being adjuſted in three or four meetings, the contracts are ſigned, and made public, that every one may conform himſelf to them in the ſale of his effects. Thus all fraud is precluded. The purchaſes and ſales, as likewiſe the exchanges of money, are tranſacted by brokers, both from Spain and Peru. After this, every one begins to diſpoſe of his goods; the Spaniſh brokers embarking their cheſts of money, and thoſe of Peru ſending away the goods they have purchaſed, in veſſels called chatas and bongos, up the river Chagre. And thus the fair of Porto Bello ends.

Formerly this fair was limited to no particular time; but as a long ſtay, in ſuch a ſickly place, extremely affected the health of the traders, His Catholic Majeſty tranſmitted an order, that the fair ſhould not laſt above forty days, reckoning from that in which the ſhips came to an anchor in the harbour; and that, if in this ſpace of time the merchants could not agree in their rates, thoſe of Spain ſhould be allowed to carry their goods up the country to Peru; and accordingly the commodore of the galleons has orders to re-embark them, and return to Carthagena; but otherwiſe, by virtue of a compact between the merchants of both kingdoms, and ratified by the king, no Spaniſh trader is to ſend his goods, on his own account, beyond Porto Bello; and on the contrary, thoſe of Peru cannot ſend remittances to Spain, for purchaſing goods there.

Whilſt the Engliſh were permitted to ſend an annual ſhip, called Navio de Permiſſo, ſhe uſed to bring to the fair a large cargo on her own account, never failing firſt to touch at Jamaica, ſo that her loading alone was more than half of all thoſe brought by the galleons; for beſides that her burthen ſo far exceeded five hundred Spaniſh

tons, that it was even more than nine hundred, ſhe had no proviſions, water, or other things, which fill a great part of the hold; ſhe indeed took them in at Jamaica, from whence ſhe was attended by five or ſix ſmaller veſſels, loaded with goods, which, when arrived near Porto Bello, were put on board her, and the proviſions removed into the tenders; by which artifice the ſingle ſhip was made to carry more than five or ſix of the largeſt galleons. This nation having a free trade, and ſelling cheaper than the Spaniards, that indulgence was of infinite detriment to the commerce of Spain.

In the dead time, all the trade ſtirring here, conſiſts in proviſions from Carthagena, and cacao and quinquina, down the river Chagre; the former is carried in ſmall veſſels to Vera Cruz, and the quinquina either depoſited in warehouſes, or put on board ſhips, which with permiſſion, come from Spain to Nicaragua and Honduras; theſe ſhips alſo take in cacao. Some ſmall veſſels likewiſe come from the iſlands of Cuba, La Trinidad, and St. Domingo, with cacao and rum.

Whilſt the aſſiento of negroes ſubſiſted either with the French or Engliſh, one of their principal factories was ſettled here, and was of conſiderable advantage to its commerce, as being the channel by which not only Panama was ſupplied with negroes, but from whence they were ſent all over the kingdom of Peru; on which account the agents of the aſſiento were allowed to bring with them ſuch a quantity of proviſions as was thought neceſſary, both for their own uſe, and their ſlaves of both ſexes.

BOOK III.

VOYAGE FROM PORTO BELLO TO PANAMA.

CHAP. I.—*Voyage up the Chagre, and Journey from Cruces to Panama by Land.*

AS it had always been our fixed deſign to ſtay no longer than abſolutely neceſſary in any place, till we had anſwered the great end of our commiſſion, our ardour to enter upon it, together with a deſire of quitting this dangerous climate, induced us to make the utmoſt diſpatch. In order to this, we ſent advice from Porto Bello to Don Dionyſio Martinez de la Vega, preſident of Panama, of our arrival, the motives of our voyage, and other circumſtances, together with His Majeſty's orders relating to the aſſiſtance to be given us by all his officers; adding our requeſts, that he would be pleaſed to ſend one or two of thoſe veſſels uſed on the Chagre, to bring us to Panama, it being impracticable for us to travel thither by land, as ſome of the inſtruments were too large for the narrow craggy roads in many parts, and others of a nature not to be carried on mules. This gentleman, who has always ſhewn a remarkable zeal for every thing dignified with His Majeſty's name, was not in the leaſt wanting on this occaſion; and his polite reply, which fully anſwered our moſt ſanguine hopes, was followed by two veſſels diſpatched to Porto Bello. Immediately on their arrival, we put on board the inſtruments and baggage, belonging both to the French gentlemen, and ourſelves; and on the 22d of December 1735, departed from Porto Bello.

The land wind being contrary to us, we rowed out of Porto Bello harbour; but the briſas ſetting in at nine in the morning, both veſſels got under ſail; and a freſh gale brought us, at four in the evening of the ſame day, to the mouth of the river

Chagre, where we landed at the cuſtom-houſe; and the next day we began to row up the river.

On the 24th, we endeavoured to proceed in the ſame manner, but the force of our oars being too weak to ſtem the current, we were obliged to ſet the veſſels along with poles. At a quarter after one in the afternoon, we meaſured the velocity of the current, and found it ten toiſes and one foot in forty ſeconds and an half. In this ſlow toilſome manner we proceeded till the 27th at eleven in the morning, when we arrived at Cruces, the landing place, about five leagues from Panama. As we advanced up the river we found a great increaſe in the velocity of the current, which on the 25th was ten toiſes in twenty-ſix ſeconds and a half: on the 26th, at the place where we anchored for that night, ten toiſes in fourteen ſeconds and a half: and on the 27th, at the town of Cruces, the ſame ſpace in ſixteen ſeconds. Conſequently the greateſt velocity of the water is two hundred and eighty-three toiſes, or about a league, in an hour.

This river, which was formerly called Lagartos, from the number of alligators in it, though now better known by that of Chagre, has its ſource in the mountains near Cruces. Its mouth, which is in the North Sea, in 9° 18′ 40″ north latitude, and 295° 6′ longitude, from the meridian of Teneriffe, was diſcovered by Lopez de Olano. Diego de Alvites diſcovered that part of it where Cruces is ſituated; but the firſt Spaniard who ſailed down it, to reconnoitre it to its mouth, was Captain Hernando de la Serna, in the year 1527. Its entrance is defended by a fort, ſituated on a ſteep rock on the eaſt ſide near the ſea ſhore. This fort is called San Lorenzo de Chagres, has a commandant and a lieutenant, both appointed by His Majeſty, and the garriſon is draughted from Panama.

About eight toiſes from the above fort, is a town of the ſame name. The houſes are principally of reeds, and the inhabitants negroes, mulattos, and meſtizos. They are a brave and active people, and on occaſion, take up arms to the number of triple the uſual garriſon of the fort.

Oppoſite, on a low and level ground, ſtands the royal cuſtom-houſe, where an account is taken of all goods going up the Chagre. Here the breadth of the river is about one hundred and twenty toiſes, but grows narrower gradually as you approach its ſource. At Cruces, the place where it begins to be navigable, it is only twenty toiſes broad; the neareſt diſtance between this town and the mouth is twenty-one miles, and the bearing north-weſt 7° 24′ weſterly; but the diſtance meaſured along the ſeveral windings of the river, is no leſs than forty-three miles.

It breeds a great number of caymanes or alligators; creatures often ſeen on its banks, which are impaſſable, both on account of the cloſeneſs of the trees, and the buſhes which cover the ground, as it were with thorns. Some of theſe trees, eſpecially the cedar, are uſed in making the canoes or banjas employed on the river. Many of them being undermined by the water, are thrown down by the ſwellings of the river; but the prodigious magnitude of the trunk, and their large and extenſive branches, hinder them from being carried away by the current; ſo that they remain near their original ſituation, to the great inconvenience and even danger of the veſſels; for the greater part of them being under water, a veſſel by ſtriking ſuddenly on them is frequently overſet. Another obſtruction to the navigation of this river is the races, or ſwift currents over the ſhallows, where thoſe veſſels, though built for that purpoſe, cannot proceed for want of a ſufficient quantity of water; ſo that they are obliged to be lightened, till they have paſſed the ſhallow.

The barks employed on this river are of two kinds, the chatas and bongos, called in Peru, bonques. The firſt are compoſed of ſeveral pieces of timber, like barks, and of great breadth, that they may draw but litte water; they carry ſix or ſeven hundred quintals. The bongos are formed out of one piece of wood; and it is ſurpriſing to think there ſhould be trees of ſuch a prodigious bulk, ſome being eleven Paris feet broad, and carrying conveniently four or five hundred quintals. Both ſorts have a cabin at the ſtern, for the conveniency of the paſſengers, a kind of awning ſupported with a wooden ſtancheon reaching to the head, and a partition in the middle, which is alſo continued the whole length of the veſſel; and over the whole, when the veſſel is loaded, are laid hides, that the goods may not be damaged by the violence of the rains, which are very frequent here. Each of theſe require, beſides the pilot, at leaſt eighteen or twenty robuſt negroes; for without ſuch a number, they would not be able, in going up, to make any way againſt the current.

All the foreſts and woods near this river are full of wild beaſts, eſpecially different kinds of monkeys. They are of various colours, as black, brown, reddiſh, and ſtriated; there is alſo the ſame diverſity in their ſize; ſome being a yard long, others about half a yard, and others ſcarce one third. The fleſh of all theſe different kinds is highly valued by the negroes, eſpecially that of the red; but however delicate the meat may be, the ſight of them is I think, enough to make the appetite abhor them; for when dead, they are ſcalded in order to take off the hair, whence the ſkin is contracted by the heat, and when thoroughly cleaned, looks perfectly white, and very greatly reſembles a child of about two or three years of age, when crying. This reſemblance is ſhocking to humanity, yet the ſcarcity of other food in many parts of America renders the fleſh of theſe creatures valuable; and not only the negroes, but the Creoles and Europeans themſelves, make no ſcruple of eating it.

Nothing in my opinion, can excel the proſpects which the rivers of this country exhibit. The moſt fertile imagination of a painter can never equal the magnificence of the rural landſcapes here drawn by the pencil of Nature. The groves which ſhade the plains, and extend their branches to the river; the various dimenſions of the trees which cover the eminences; the texture of their leaves; the figure of their fruits, and the various colours they exhibit, form a moſt delightful ſcene, which is greatly heightened by the infinite varitety of creatures with which it is diverſified. The different ſpecies of monkeys, ſkipping in troops from tree to tree, hanging from the branches, and in other places ſix, eight, or more of them linked together, in order to paſs a river, and the dams with their young on their ſhoulders, throwing themſelves into odd poſtures, making a thouſand grimaces, will perhaps appear fictitious to thoſe who have not actually ſeen it. But if the birds are conſidered, our reaſon for admiration will be greatly augmented: for, beſide thoſe already mentioned (Book I. chap. vii.), and which, from their abundance, ſeem to have had their origin on the banks of this river, here are a great variety of others, alſo eatable, as the wild and royal peacock, the turtle-dove, and the heron. Of the latter there are four or five ſpecies; ſome entirely white, others of the ſame colour, except the neck and ſome parts of the body, which are red; others black, only the neck, tips of the wings and the belly white; and ſome, with other mixture of colours; and all differing in ſize. The ſpecies firſt mentioned are the leaſt; the white mixed with black the largeſt and moſt palatable. The fleſh of peacocks, pheaſants, and other kinds, is very delicate *. The trees along the banks

* The fiſhy taſte, which moſt of the fowls in this country have, is an exception to their delicacy as food. A.

of

of this river are ſurpriſingly loaded with fruit; but the pine-apples, for beauty, ſize, flavour, and fragrancy, excel thoſe of all other countries, and are highly eſteemed in all parts of America.

On our arrival at Cruces, we went on ſhore, and were entertained by the alcalde of the town, whoſe houſe was that of the cuſtoms, where an account is taken of all goods brought up the river. Having, with all poſſible diſpatch, got every thing ready for our journey to Panama, on the 29th, at half an hour after eleven in the morning, we ſet out, and reached that city by three quarters after ſix in the evening. We made it our firſt buſineſs to wait on the preſident, a mark of reſpect due, not only to his dignity, but alſo for the many civilities he had ſhewn us. This worthy gentleman received us all, and particularly the foreigners, in the moſt cordial and endearing manner. He alſo recommended to all the King's officers, and other perſons of diſtinction in the city, not to be wanting in any good office, or mark of eſteem: a behaviour which ſhewed at once the weight of the royal orders, and his zeal to execute his Sovereign's pleaſure.

Some indiſpenſable preparations which were to be made for the proſecution of our journey, detained us longer at Panama than we expected. We however employed our time to the beſt advantage, making ſeveral obſervations, particularly on the latitude and the pendulum; but the proximity of Jupiter at that time to the ſun hindered us from ſettling the longitude. I alſo employed myſelf in taking a plan of the place, with all its fortifications, and adjacent coaſt. At length, all things being in readineſs, we embarked without any farther loſs of time.

CHAP. II. — *Deſcription of the City of Panama.*

PANAMA is built on an iſthmus of the ſame name, the coaſt of which is waſhed by the South Sea. From the obſervations we made here, we found the latitude of this city to be 8° 57′ 48 ′½ north. With regard to its longitude, there are various opinions; none of the aſtronomers having been able, from obſervations made on the ſpot, to aſcertain it, ſo that it is ſtill doubtful whether it lies on the eaſt or weſt ſide of the meridian of Porto Bello. The French geographers will have it to lie on the eaſt ſide, and accordingly have placed it ſo in their maps; but, in thoſe of the Spaniards, it is on the weſt: and I conceive the latter, from their frequent journies from one place to the other, may be concluded to have a more intimate knowledge of their reſpective ſituations; whereas the former, being ſtrangers, in a great meaſure, to thoſe places, have not the opportunity of making ſo frequent obſervations. I allow indeed that, among the Spaniards who make this little journey, the number is very ſmall of thoſe who have either capacity or inclination for forming a well-grounded judgment of the road they travel; but there have been alſo many expert pilots, and other perſons of curioſity, who have employed their attention on it, and from their report the ſituation of the city has been determined. This opinion is in ſome meaſure confirmed by our courſe, the direction of which on the river, from its mouth to the town of Cruces, was eaſt 6° 15′ ſoutherly, and the diſtance being twenty-one miles, the difference between the two meridians is twenty minutes, the diſtance Chagre is ſituated to the weſt of Cruces. We muſt alſo conſider the diſtance between Porto Bello and Chagre. During the firſt two hours and a half we ſailed a league and a half an hour, when, the land-breeze ſpringing up, we ſailed two leagues an hour for ſeven hours, which in all makes eighteen leagues; and the whole courſe having been very nearly weſt, the difference of longitude muſt have

been

been forty-four miles, or forty-one, allowing for what might have been wanting of a due weſt courſe; and from this again ſubtracting the twenty minutes which Cruces lies to the eaſt of Chagre, the reſult is, that Cruces is ſituated twenty-one minutes to the weſtward of Porto Bello. To this laſt reſult muſt be added the diſtance of meridians between Cruces and Panama, the bearing of which is near ſouth-weſt and north-eaſt; and reckoning that we travelled, on account of the roughneſs and cragginess of the road, only three quarters of a league an hour, during the ſeven hours, the whole is fourteen miles, and the difference of meridians ten minutes and a half. Conſequently Panama is ſituated about thirty minutes weſt of Porto Bello; and the Spaniſh artiſts are nearer the truth than the French.

The firſt diſcovery of Panama the Spaniards owe to Tello de Guzman, who landed here in 1515; but found only ſome fiſhermen's huts, this being a very proper place for their buſineſs, and from thence the Indians call it Panama, which ſignifies a place abounding in fiſh. Before this, namely, in the year 1513, Baſco Nunez de Balboa diſcovered the South Sea, and took legal poſſeſſion of it in the names of the Kings of Caſtile. The diſcovery of Panama was, in the year 1518, followed by the ſettlement of a colony there, under Pedrarias Davila, governor of Caſtilla del Oro, the name by which this Terra Firma was then called; and in 1521, His Catholic Majeſty, the Emperor Charles V., conſtituted it a city, with the proper privileges.

It was this city's misfortune, in the year 1670, to be ſacked and burnt by John Morgan, an Engliſh adventurer. He had before taken Porto Bello and Maracaybo; and, retiring to the iſlands, he every where publiſhed his deſign of going to Panama; upon which many of the pirates, who then infeſted thoſe ſeas, joined him. He firſt ſailed for Chagre, where he landed ſome of his men, and, at the ſame time, battered the caſtle with his ſhips; but his ſucceſs was owing to a very extraordinary accident. His ſtrength was conſiderably diminiſhed by the great numbers killed and wounded by the fort, and he began to think it adviſable to retreat; when an arrow, ſhot from the bow of an Indian, lodged in the eye of one of Morgan's companions. The perſon wounded, rendered deſperate by the pain, with a remarkable firmneſs and preſence of mind, drew the arrow from the wound, and, wrapping one of its ends in cotton, or tow, put it into his muſket, which was ready loaded, and diſcharged it into the fort, where the roofs of the houſes were of ſtraw, and the ſides of wood, according to the cuſtom of that country. The arrow fell on one of the roofs, and immediately ſet it on fire, which was not at firſt obſerved by the beſieged, who were buſy in defending the place; but the ſmoke and flames ſoon informed them of the total deſtruction of the fort, and of the magazine of powder, which the flames muſt ſoon reach. This unexpected accident filled them with terror and confuſion; the courage of the ſoldiers degenerated into tumult and diſobedience; and, every one being eager to ſave himſelf, the works were ſoon abandoned, in order to eſcape the double danger of being either burnt or blown up. The commandant, however, determined to do all in his power, ſtill defended the fort, with ſixteen or twenty ſoldiers, being all that were left him, till, covered with wounds, he fell a victim to his loyalty. The pirates, encouraged by this accident, puſhed their attack with the utmoſt vigour; and the few people were obliged to ſurrender the place, which the violence of the flames ſoon laid in aſhes. Having ſurmounted this difficulty, the greater part of them proceeded up the river in boats and launches, leaving the ſhips at anchor, for the defence of their new conqueſt. The detachment having landed at Cruces, marched towards Panama, and, on the Sabana, a ſpacious plain before the city, they had ſeveral ſkirmiſhes, in which Morgan always gained the advantage; ſo that he made himſelf maſter of the city, but found it almoſt

forſaken;

forſaken; the inhabitants, on ſeeing their men defeated, having retired into the woods. He now plundered it at his leiſure; and, after ſtaying ſome days, agreed, for a large ranſom, to evacuate it without damaging the buildings; but, after the payment of the money, the city was ſet on fire, by accident, as they gave out, and as the hiſtory of his adventures relates; but it is much more probable that it was done by deſign. To pretend it was owing to accident, ſeemed to them the beſt palliative for their violating the treaty.

This misfortune rendering it abſolutely neceſſary to rebuild the city, it was removed to its preſent ſituation, which is about a league and a half from the former, and much more convenient. It has a wall of free-ſtone, and is defended by a large garriſon of regulars; whence detachments are ſent to do duty at Darien, Porto Bello, and Chagre. Near the city, on the north-weſt, is a mountain called Ancon, whoſe perpendicular height, by a geometrical menſuration, we found to be one hundred and one toiſes.

The houſes, in general, when we viſited this city, were of wood, having but one ſtory, and a tiled roof, but large; and from their diſpoſition, and the ſymmetry of their windows, made a handſome appearance. A few were of ſtone. Without the walls is an open ſuburb, larger than the city itſelf, and the houſes of the ſame materials and conſtruction as thoſe within, except ſuch as border on the country, moſt of which are thatched with ſtraw; and among them ſome bujios, or huts. The ſtreets, both of the city and ſuburb, are ſtraight, broad, and, for the moſt part, paved.

Though the greater part of the houſes were formerly of wood, fires were rarely known at Panama, the nature of the timber being ſuch, that if any fire is laid on the floor, or placed againſt a wall, it is productive of no other conſequence than that of making a hole, without kindling into a flame; and the fire itſelf extinguiſhed by the aſhes. But, notwithſtanding this excellent quality in the wood, in the year 1737, the city was almoſt entirely conſumed, the goodneſs of the timber being unable to ſecure it from the ravages of the flames; indeed, by the concurrence of another cauſe, the timber was then rendered more combuſtible. The fire began in a cellar, where, among other goods, there were great quantities of pitch, tar, naphtha, and brandy; theſe inflammable ſubſtances rendered this ſingular kind of wood a more eaſy prey to the devouring flames. In this conflagration the ſuburb owed its ſafety to its diſtance from the city, which is one thouſand two hundred toiſes. Since this misfortune, it has been again rebuilt; and the greater part of the houſes are now of ſtone, all ſorts of materials for buildings of this kind being here in the greateſt plenty.

In this city is a tribunal or royal audience, in which the governor of Panama preſides; and to this employment is annexed the captainſhip general of Terra Firma, which is generally conferred on an officer of diſtinction, though his common title is that of preſident of Panama. It has alſo a cathedral, and a chapter conſiſting of the biſhop, and a number of prebendaries; an aujutamiento, or corporation, compoſed of alcaldes and regidores; three officers of revenue, under an accomptant, treaſurer, and agent; and a court of inquiſition appointed by the tribunal of inquiſition at Carthagena. The cathedral, and alſo the convents, are of ſtone; indeed, before the conflagration, ſeveral of the latter were of wood; but that terrible misfortune ſhewed them the neceſſity of uſing more ſolid materials. The convents are thoſe of the Dominicans, Franciſcans, Auguſtines, and Fathers of Mercy; a college of Jeſuits, a nunnery of the order of St. Clara, and an hoſpital of St. Juan de Dios. The ſlender revenues will not admit of their being very numerous; and accordingly the ornaments of the churches are neither remarkably rich, nor contemptible.

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The decorations of private houſes are elegant, but not coſtly; and though there are here no perſons of ſuch monſtrous fortunes as in ſome cities of America, it is not deſtitute of wealthy inhabitants, and all have a ſufficiency; ſo that, if it cannot be claſſed among opulent cities, it is certainly above poverty.

The harbour of this city is formed in its road, by the ſhelter of ſeveral iſlands, particularly Iſla de Naos, de Perico, and Flamencos: the anchoring-place is before the ſecond, and thence called Perico. The ſhips here lie very ſafe; and their diſtance from the city is about two and a half, or three leagues.

The tides are regular; and, according to an obſervation we made on the day of the conjunction, it was high-water at three in the evening. The water riſes and falls conſiderably; ſo that the ſhore, lying on a gentle ſlope, is, at low water, left dry to a great diſtance. And here we may obſerve the great difference of the tides in the North and South Seas, being directly oppoſite: what in the ports on the North Sea is accounted irregular, is regular in the South; and when in the former it ceaſes to increaſe or decreaſe, in the latter it both riſes and falls, extending over the flats, and widening the channels, as the proper effect of the flux and reflux. This particular is ſo general, as to be obſerved in all the ports of the South Sea; for even at Manta, which is almoſt under the equinoctial, the ſea regularly ebbs and flows nearly ſix hours; and the effects of theſe two motions are ſufficiently viſible along the ſhores. The ſame happens in the river of Guayaquil, where the quantity of its waters does not interrupt the regular ſucceſſion of the tides. The like phenomena are ſeen at Paita, Guanchaco, Callao, and the other harbours; with this difference, that the water riſes and falls more in ſome places than in others; ſo that we cannot here verify the well-grounded opinion entertained by ſailors, namely, that between the tropics the tides are irregular, both in the diſproportion of the time of flood to that of the ebb, and alſo in the quantity of water riſing or falling by each of theſe motions; the contrary happening here. This phenomenon is not eaſily accounted for; all that can be ſaid is, that the iſthmus, or narrow neck of land, ſeparating the two ſeas, confines their waters, whereby each is ſubject to different laws.

The variation of the magnetic needle, in this road, is 7° 39′ eaſterly. Both the road and whole coaſt abound in a great variety of excellent fiſh, among which are two kinds of oyſters, one ſmaller than the other; but the ſmalleſt are much the beſt.

At the bottom of the ſea are a great number of pearls; and the oyſters, in which they are found, are remarkably delicious. This fiſhery is of great advantage to the inhabitants of all the iſlands in this bay.

The harbour of Perico is the rendezvous of the Peru fleet, during the time of the fair; and is never without barks loaded with proviſions from the ports of Peru, and a great number of coaſting veſſels going from thence to Choco, and parts on the weſtern coaſt of that kingdom.

The winds are the ſame as along the whole coaſt; the tides or currents are ſtronger near the iſlands than at a diſtance from them; but no general rule can be given as to their courſe, that depending on the place where the ſhip is, with regard to the channels which they form. They alſo vary in the ſame place according to the winds. Let it therefore ſuffice that we have ſhewn there are tides on this coaſt, that, on any occaſion, this notice may be applied to uſe.

CHAP.

CHAP. III. — *Of the Climate and Inhabitants of Panama.*

MANY countries of America have ſuch a reſemblance, in reſpect to the inhabitants and cuſtoms, that they appear the ſame. This is equally obſervable in the climate, when no difference is occaſioned by the accidental diſpoſition of the ground, or quality of the ſoil. But, this ſubject having been already ſufficiently handled, a rational curioſity will require us only to mention thoſe particulars in which they differ. Thus, after ſaying that the inhabitants of this city reſemble thoſe of Carthagena with regard to their conſtitution, I muſt add, that there is ſome difference in their diſpoſition, thoſe of Panama being more parſimonious, more deſigning and inſidious, and ſtopping at nothing when profit is in view, the pole-ſtar both of Europeans and Creoles; and it is difficult to determine which ſet the firſt example. The ſame ſelfiſhneſs and parſimony reigns equally among the women, ſome Spaniſh ladies excepted, who have accompanied their huſbands, appointed auditors, or to ſome other employments; theſe ſtill retaining the qualities they imbibed from education.

The women of Panama begin to imitate the dreſs of thoſe of Peru, which, when they go abroad, conſiſts only of a gown and petticoat, nearly reſembling thoſe worn in Spain; but at home, on viſits, and ſome particular ceremonies, their ſhift is their only clothing from the waiſt upwards. The ſleeves are very long and broad, and quite open in the lower part or near the hand; and theſe, like the boſom, are decorated with very fine lace, the chief pride of the ladies of Panama. They wear girdles, and five or ſix chaplets or rows of beads about their necks, ſome ſet in gold, ſome of coral mixed with ſmall pieces of gold, and others leſs coſtly; but all of different ſizes, in order to make the greater ſhow; and beſides theſe, one, two, or more gold chains, having ſome relics dependent from them. Round their arms they wear bracelets of gold and tombac; alſo ſtrings of pearls, corals, and bugles. Their petticoat reaches only from their waiſt to the calf of their legs; and from thence to a little above their ancle, hangs, from their under petticoat, a broad lace. The Meſtiza, or Negro women, or the coloured women as they are called here, are diſtinguiſhed in their dreſs from thoſe of Spain, only by the gown and petticoat; the particular privilege of the latter, and which alſo gives them the title of Signora; though many of them have little to boaſt of, either with regard to rank or wealth*.

If I omitted in Carthagena the following obſervation, it was in order to reſerve it for this place; namely, that in Carthagena, Porto Bello, and Panama, the inhabitants have a very ſingular pronunciation; and as ſome nations have a haughty accent, ſome a politeneſs in their manner of expreſſion, and others ſpeak in a very quick manner; ſo here their pronunciation has a faintneſs and languor, which is very diſagreeable, till we are reconciled to it by cuſtom. And what is ſtill more particular, each of theſe three cities has a different accent in this languor; beſides particular ſyllables peculiar to each, and no leſs different than they are from the manner of ſpeaking uſed in Spain. This may, in ſome meaſure, flow from an ill habit of body, weakened by the exceſſive heat of the climate; but I believe it is principally owing to cuſtom.

The only difference between the climate of Carthagena and this is, that ſummer begins later, and ends ſooner, as, the longer the briſas delay their return, the ſooner they are over. From many thermometrical obſervations made on ſeveral days without any ſenſible difference betwixt them at the ſame hours, on the 5th and 6th of January

* Theſe cuſtoms are general throughout all the northern parts of South America. A.

1736, at ſix in the morning, they found the liquor at 1020½, at noon 1023½, and at three in the afternoon at 1025. But, at the ſame time, it muſt be obſerved, that the briſas now began to blow, and, conſequently it was not the time of the greateſt heats; theſe prevailing in the months of Auguſt, September, and October.

Though this climate would naturally be ſuppoſed to produce the ſame plants with others in the ſame latitude, it is very different. Nor does this ſeem to proceed from any defect in the ſoil, but from the fondneſs of the inhabitants for trade, and their total neglect of agriculture, as too laborious. But, be the real cauſe of it what it will, this is certain, that even in the parts contiguous to the city, the land is left entirely to nature; nor does the leaſt veſtige remain of its being formerly cultivated. From hence proceeds a ſcarcity of all things, and, conſequently, they are ſold at a high price. Here are no pulſe or pot-herbs of any kind; and that this is not owing to the ſterility of the earth, we had an evident proof in a ſmall garden, belonging to a Gallician, where all things of this kind were produced in great plenty. By this means Panama is under a neceſſity of being ſupplied with every thing, either from the coaſt of Peru, or places in its own juriſdiction.

CHAP. IV. — *Of the uſual Food of the Inhabitants of Panama.*

THE very want of proviſions cauſes the tables at Panama to be better furniſhed; and it may be truly ſaid, that this city ſubſiſts wholly by commerce, whatever is conſumed in it coming from other places. The ſhips of Peru are continually employed in exporting goods from that country, and the coaſting barks in bringing the products of the ſeveral places in its juriſdiction and that of Veraguas. So that Panama is plentifully furniſhed with the beſt of wheat, maize, poultry, and cattle. Whether it be owing to the ſuperior goodneſs of their food, the temperament of the climate, or to ſome other cauſe to me unknown, it is certain that the inhabitants of this city are not ſo meagre and pale as thoſe who live at Carthagena and Porto Bello.

Their common food is a creature called Guana. It is amphibious, living equally on the land and in the water. It reſembles a lizard in ſhape, but is ſomething larger, being generally above a yard in length: ſome are conſiderably bigger, others leſs. It is of a yellowiſh green colour, but of a brighter yellow on the belly than on the back, where the green predominates. It has four legs like a lizard; but its claws are much longer in proportion; they are joined by a web, which covers them, and is of the ſame form as thoſe of geeſe, except that the talons at the end of the toes are much longer, and project entirely out of the web or membrane. Its ſkin is covered with a thin ſcale adhering to it, which renders it rough and hard; and, from the crown of its head to the beginning of its tail, which is generally about half a yard, runs a line of vertical ſcales, each ſcale being from one to two lines in breadth, and three or four in length, ſeparated ſo as to repreſent a kind of ſaw. But from the end of the neck to the root of the tail, the ſcales gradually leſſen, ſo as, at the latter part, to be ſcarce viſible. Its belly is, in largeneſs, very diſproportionable to its body; and its teeth ſeparated, and very ſharp pointed. On the water it rather walks than ſwims, being ſupported by the webs of its feet; and on that element its ſwiftneſs is ſuch, as to be out of ſight in an inſtant; whereas on the land, though far from moving heavily, its celerity is greatly leſs. When pregnant, its belly ſwells to an enormous ſize; and, indeed, they often lay ſixty eggs at a time, each of which is as large as thoſe of a pigeon. Theſe are reckoned a great dainty, not only at Panama, but in other parts where this

creature is found. Theſe eggs are all incloſed in a long, fine membrane, and form a kind of ſtring. The fleſh of this animal is exceedingly white, and univerſally admired by all ranks. I taſted both the fleſh and the eggs, but the latter are viſcid in the mouth, and of a very diſagreeable taſte: when dreſſed, their colour is the ſame with that of the yolk of a hen's egg. The taſte of the fleſh is ſomething better: but, though ſweet, has a nauſeous ſmell. The inhabitants, however, compared it to that of chicken; though I could not perceive the leaſt ſimilarity *. Theſe people, who, by being accuſtomed to ſee them, forget the natural horror attending the ſight of an alligator, delight in this food, to which the Europeans at firſt can hardly reconcile themſelves.

Here are two ſingularities attributed to Nature, and firmly believed by the inhabitants; one in the plant called Yerva del Gallo; the other, the double-headed ſnake, called La Cabeça.

It is conſtantly aſſerted in this city, that its neighbourhood produces a ſnake having a head at each extremity; and that from the bite of each a poiſon is conveyed equal in activity to that of the coral, or rattle-ſnake; we could not have the ſatisfaction of ſeeing one of this ſtrange ſpecies, though we uſed all the means in our power to gratify our curioſity: according to report, its uſual length is about half a yard, in figure perfectly reſembling an earth-worm. Its diameter is about ſix or eight lines, and its head different from that of other ſnakes; being of the ſame dimenſions with its body. It is, however, very probable, that the creature has only one head, and, from its reſembling a tail, has been imagined to have two †. The motion of it is very ſlow, and its colour variegated with ſpots of a paler tint.

The herb called Del Gallo, or cocks-herb, is ſo highly valued here, that they affirm, if an inciſion be made round the neck of that fowl, provided the vertebra be not injured, on the application of this herb, the wound immediately heals. Whatever conſtruction we put upon this pretended cure, it can only be conſidered as a mere vulgar notion; and I mention it here with no other intention, than to ſatisfy the world that we were not ignorant of it.

During our ſtay at Panama, we were very urgent with thoſe who related this ſtory to procure us ſome of the herb, that we might make the experiment; but in this we were as unfortunate as in the article of the two-headed ſnake, none being to be had. I have, however, ſince been told, by perſons ſettled in Panama, that it was very common; a ſufficient proof, in my opinion, that the ſtory has no foundation; for, if it was ſo eaſy to be had, and of ſuch ſurpriſing virtue, what reaſon could they have for refuſing to convince us by ocular demonſtration? It may have a ſtyptic virtue, when none of the principal blood-veſſels are injured; but that it can join them after being cut, together with the nerves and tendons when totally ſevered, no perſon of any knowledge or judgment will ever be brought to believe. And, if its effects are ſo remarkably happy on poultry, it is ſurely natural to think it ſhould have the ſame on any other animal; and, conſequently, on the human ſpecies. If this were the caſe, it would be of infinite value; and no ſoldier, eſpecially, ſhould be without it, as a few ounces of this grand reſtorative would immediately cure the moſt terrible wounds.

* The fleſh of the guana is whiter than chicken, and more pleaſing to moſt palates, except as to the dryneſs of it. The common ſauce to it is lime juice, ſeaſoned with Chian pepper; which ſauce the natives eat with their fiſh, fleſh, and fowl. If the guana were to be had in England, I doubt not but it would be ranked among the greateſt dainties. A.

† This conjecture is very right. H.

CHAP. V. — *Of the Trade and Commerce of Panama.*

FROM what has been ſaid relating to the commerce of Porto Bello in the time of the galleons, an idea may be formed of that of Panama on the ſame occaſion; this city being the firſt where the treaſure from Peru is landed, and likewiſe the ſtaple for the goods brought up the river Chagre. This commerce is of the greateſt advantage to the inhabitants, both with regard to letting their houſes, the freight of veſſels, the hire of mules and Negroes, who, forming themſelves into ſeparate bodies, draw along from Cruces large bales, or any brittle and delicate wares; the roads here, though the diſtance is but ſhort by croſſing the chain of mountains called the Cordilleras, are in ſome parts ſo narrow, that a beaſt of burden can hardly paſs along; and, conſequently, an imminent danger would attend the employing of mules for this ſervice.

This city, even during the abſence of the armada, is never without a great number of ſtrangers; it being the thoroughfare for all going to the ports of Peru, in the South Sea, as alſo for any coming from thence to Spain: to which muſt be added, the continual trade carried on by the Peruvian ſhips, which bring variety of goods, as meal of different ſorts, wines, brandy from grapes, or brandy caſtilla, as it is called by all the Americans in theſe parts, ſugar, tallow, leather, olives, oil, and the like. The ſhips from Guayaquil bring cacao, and quinquina or Jeſuits' bark; which always meet with a quick exportation here, eſpecially in time of peace. All goods, particularly thoſe of Peru, are ſubject to great alterations in their prices, ſo that, on many occaſions, the owners loſe conſiderably, and ſometimes their whole purchaſe: on the other hand, there are favourable opportunities, when they triple it, according to the plenty or ſcarcity of the commodity. The different ſorts of meals are in particular ſubject to this accident; they ſoon becoming ſo extremely vitiated by the great heat, that there is an abſolute neceſſity for throwing them overboard. The wines and brandies alſo, from the heat of the jars, contract a pitchy taſte, and are ſoon unfit for uſe. The tallow melts, becomes full of maggots, and turns into a kind of earth; the ſame may be obſerved of other goods. Hence, if the gain is ſometimes great, the riſk of the loſs is proportional.

The coaſting barks, which make frequent trips from the adjacent ports, ſupply the city with hogs, poultry, hung-beef, hogs'-lard, plantanes, roots, and other eatables; with all which, this city, by the induſtry of others, is abundantly ſupplied.

The Peru and Guayaquil veſſels, unleſs at the time when the armada is here, return empty, except when they have an opportunity of taking Negroes on board; as, while the aſſiento ſubſiſts, there is at Panama a factory, or office, which correſponds with that at Porto Bello; and hither the Negroes are brought, as being, in ſome meaſure, the ſtaple for them, with regard to the kingdoms of Terra Firma and Peru.

The preſident of Panama is inveſted with a power of licenſing every year one or two ſhips, which go to Sonſonate, el Realejo, and other ports in the province of Guatemala and New Spain, to fetch from thence tar, naphtha, and cordage, for the veſſels belonging to the Panama trade; they carry thither ſuch parts of the Peruvian goods as do not find a market at Panama; but few of the ſhips which have obtained this permiſſion return immediately; for the moſt profitable part of their trade conſiſting of indigo, they make the beſt of their way to Guayaquil, or other ports farther to the ſouthward. The dearneſs of proviſions in this city and its diſtrict, occaſioned by the large quantity required, and the great diſtance from whence they are brought, is amply compenſated by the multitude and value of the pearls found in the oyſters of its gulf; and particularly thoſe near the iſlands del Rey, Tabaga, and others, to the number of forty-three, forming

ing a ſmall archipelago. The firſt to whom the Indians made this valuable diſcovery was Baſco Nunez de Balboa, who, in his paſſage this way, to make farther diſcoveries on the South Sea, was preſented with ſome by Tumaco, an Indian prince. At preſent they are found in ſuch plenty, that there are few perſons of ſubſtance near Panama, who do not employ all, or, at leaſt, part of their ſlaves in this fiſhery, the manner of which not being commonly known, it will not be improper to deſcribe it here.

The owners of the Negroes employ the moſt proper perſons for this fiſhery; which being performed at the bottom of the ſea, they muſt be expert ſwimmers, and capable of holding their breath a long time. Theſe they ſend to the iſlands, where they have huts built for their lodgings, and boats which hold eight, ten, or twenty Negroes, under the command of an officer. In theſe boats they go to ſuch parts as are known to produce pearls, and where the depth of water is not above ten, twelve, or fifteen fathom. Here they anchor; and the Negroes having a rope faſtened round their bodies, and the other end to the ſide of the boat, they take with them a ſmall weight, to accelerate their ſinking, and plunge into the water. On reaching the bottom, they take up an oyſter, which they put under the left arm; the ſecond they hold in their left hand, and the third in their right: with theſe three oyſters, and ſometimes another in their mouth, they riſe to breathe, and put them in a bag. When they have reſted themſelves awhile, and recovered their breath, they dive a ſecond time; and thus continue, till they have either completed their taſk, or their ſtrength fails them. Every one of theſe Negro divers is obliged daily to deliver to his maſter a fixed number of pearls; ſo that when they have got the requiſite number of oyſters in their bag, they begin to open them, and deliver the pearls to the officer, till they have made up the number due to their maſter; and if the pearl be but formed, it is ſufficient, without any regard to its being ſmall or faulty. The remainder, however large or beautiful, are the Negro's own property, nor has the maſter the leaſt claim to them; the ſlaves being allowed to ſell them to whom they pleaſe, though the maſter generally purchaſes them at a very ſmall price.

Theſe Negroes cannot every day make up their number, as in many of the oyſters the pearl is not at all, or but imperfectly formed; or the oyſter is dead, whereby the pearl is ſo damaged, as to be of no value; and as no allowance is made for ſuch pearls, they muſt make up their numbers with others.

Beſides the toil of this fiſhery, from the oyſters ſtrongly adhering to the rocks, they are alſo in no ſmall danger from ſome kinds of fiſh, which either ſeize the Negroes, or, by ſtriking on them, cruſh them by their weight againſt the bottom. So that theſe creatures ſeem to know that men are robbing them of the moſt valuable product of their element, and therefore make a moſt vigorous defence againſt their enemy. The fiſhery on the whole coaſt is obnoxious to the ſame danger from theſe fiſh; but they are much more frequent where ſuch riches abound. The ſharks and tintoreras, which are of an enormous ſize, feed on the bodies of theſe unfortunate fiſhermen; and the mantas, or quilts, either preſs them to death by wrapping their fins about them, or cruſh them againſt the rocks by their prodigious weight. The name manta has not been improperly given to this fiſh, either with regard to its figure or property; for being broad and long like a quilt, it wraps its fins round a man, or any other animal that happens to come within its reach, and immediately ſqueezes it to death. This fiſh reſembles a thornback in ſhape, but is prodigiouſly larger.

Every Negro, to defend himſelf againſt theſe animals, carries with him a ſharp knife, with which, if the fiſh offers to aſſault him, he endeavours to ſtrike it in a part where it has no power to hurt him; on which the fiſh immediately flies. The officers keep a watchful eye on theſe voracious creatures, and, on diſcovering them, ſhake the ropes

faſtened to the Negroes' bodies, that they may be upon their guard; many, on the divers being in danger, have thrown themſelves into the water, with the like weapon, and haſten down to their defence: but too often all their dexterity and precaution is not ſufficient to protect the diver from being devoured by theſe fiſh, or loſing one of his legs or arms by their bite. Several ineffectual ſchemes have been practiſed, to prevent ſuch melancholy accidents.

The pearls of theſe fiſheries are generally of a good water, and ſome very remarkable, both in their ſhape and ſize; but as there is a difference in both theſe properties, ſo there is alſo a difference in their water and colour; ſome being highly valuable, and others as remarkably defective. Some of theſe pearls, though indeed but few, are ſent to Europe, the greater part being carried to Lima; where the demand for them is very great, being not only univerſally worn there by all perſons of rank, but alſo ſent from thence into the inland parts of Peru.

Beſides theſe pearls, the kingdom of Terra Firma was formerly equally remarkable for the fine gold produced by the mines in its territories; and which conſequently proved a very conſiderable addition to its riches. Part of theſe mines were in the province of Veraguas, others in that of Panama; but moſt, alſo the richeſt, and whoſe metal was of the fineſt quality, were in the province of Darien; and, on that account, the conſtant object of the miners. But the Indians revolting, and making themſelves maſters of the whole province, there was a neceſſity for abandoning theſe mines, by which means the greater part of them were loſt; a few only remaining on the frontiers, which ſtill yield a ſmall quantity of gold. Their produce might indeed be increaſed, did not the fear of the fickle nature of the Indians, and the ſmall confidence that can be placed on their apparent friendſhip, deter the maſters of the mines from taking proper meaſures for improving them.

Though the mines of Veraguas and Panama are not expoſed to theſe dangers, yet they are not worked with more vigour than the others; and this for two reaſons: the firſt is, that, beſides their being leſs rich in metal than the others, the gold they yield is not of ſo good a quality as that of Darien: the ſecond, and indeed the moſt weighty, is, that as theſe ſeas, by their rich produce of pearls, offer a more certain, and at the ſame time a more eaſy profit, they apply themſelves to this fiſhery preferably to the mines. Some, indeed, though but few, are worked, beſides thoſe above mentioned, on the frontiers of Darien.

Beſides the advantage ariſing to Panama from its commerce, as the revenue here is not equal to the diſburſements, a very conſiderable ſum of money is annually remitted hither from Lima, for the payment of the troops, the officers of the audience, and others in employment under His Majeſty.

CHAP. VI. — *Extent of the Audience of Panama, in the Kingdom of Terra Firma.**

THE city of Panama is not only the capital of its particular province, but alſo of the whole kingdom of Terra Firma, which conſiſts of the three provinces of Panama, Darien, and Veraguas. The firſt is the ſeat of every branch of the government, as being ſituated between the other two; Darien lying on the eaſt ſide, and Veraguas on the weſt.

* The appellation of Terra Firma has been abſurdly extended by our mariners to Caraccas, &c.

The

The kingdom of Terra Firma begins northwards at the river of Darien, and ſtretching along by Nombre de Dios, Bocas del Toro, Bahia del Almirante, is terminated weſtward by the river de los Dorados in the North Sea; and towards the South Sea, beginning on the weſtern part, it extends from Punta Gorda, in Coſta Rica, by Punta de Mariatos, Morro de Puercos, to the gulf of Darien; whence it continues ſouthward along the coaſt, by Puerto de Pinas, and Morro Quemado, to the bay of St. Bonaventura. Its length from eaſt to weſt is one hundred and eighty leagues, but if meaſured along the coaſt, it exceeds two hundred and thirty; and its breadth, from north to ſouth, is the ſame as that of the iſthmus, which includes the whole province of Panama, and part of that of Darien. The narroweſt part of this iſthmus is from the rivers Darien and Chagre, on the North Sea, to thoſe of Pito and Camito on the South Sea: and here the diſtance, from ſea to ſea, is about fourteen leagues. Afterwards it increaſes in breadth towards Choco and Sitara; and the ſame weſtward in the province of Veraguas, forming an interval of forty leagues from ſea to ſea.

Along this iſthmus run thoſe famous chains of lofty mountains, called the Andes, which, beginning at ſuch a prodigious diſtance as the Terra Magellanica, traverſe the kingdom of Chili, the province of Buenos Ayres, and thence through the provinces of Peru and Quito; and from the latter, contract themſelves, as it were, for a paſſage through this narrow iſthmus. Afterwards, again widening, they continue their courſe through the provinces and kingdoms of Nicaragua, Guatemala, Coſta Rica, St. Miguel, Mexico, Guajaca, la Puebla, and others; with ſeveral arms or ramifications, for ſtrengthening, as it were, the ſouthern with the northern parts of America.

In order to give the reader a comprehenſive idea of this kingdom, I ſhall ſpeak particularly of each of its three provinces, beginning with that of Panama as the principal. Moſt of its towns and villages are ſituated in ſmall plains along the ſhore, the reſt of the country being covered with enormous and craggy mountains, uninhabited on account of their ſterility.

In this province are three cities, one town, a few forts, villages, and country ſeats; the names of which, with the tribes of the inhabitants, are here ſubjoined.

The cities are Panama, Porto Bello, and Santiago de Nata de los Cavelleros. The ſituation of the latter was firſt diſcovered, in the year 1515, by captain Alonzo Perez de la Rua, at which time Nata was prince of this diſtrict. Gaſpar de Eſpinoſa was firſt commiſſioned to people it, under the title of a town. It was afterwards taken and burnt by the Indians, but he rebuilt it, and called it a city. It is large, but the chief houſes are only of earth, or unburnt bricks, and the others of mud walls. Its inhabitants are a mixture of Spaniards and Indians.

The town called los Santos is a modern ſettlement of Spaniards, who before lived at the city of Nata, but, with a view of augmenting their fortune by improving the ground, left the city; and the inhabitants of the town are at preſent more in number than thoſe of Nata. Its environs were firſt diſcovered by Rodrigo Valenzuela, and at that time contained an Indian town, governed by a prince called Guazan: the origin of the town ſufficiently ſhews it is peopled by Spaniards and Indians.

The number of villages in this province is very conſiderable, and of different kinds.

1. Nueſtra Senora de Pacora, to which we give the preference, is inhabited by Mulattos and their deſcendants.

2. San Chriſtoval de Chepo owes its name to the caciques, or princes, Chepo and Chepauri, and was diſcovered in 1515, by Tello de Guzman. Beſides Indians, here is

is a company of foot, belonging to the garriſon of Panama, moſt of whom are ſettled here with their families.

Several Rancherias, or aſſemblages of Indian huts, are under the juriſdiction of a village. Theſe Rancherias are ſituated to the ſouthward, in the ſmall chaſms or breaches of the mountains.

In the ſavannahs of the river Mamoni are ſeveral ſuch aſſemblages of huts, and within the ſame juriſdiction; namely,

On the river De la Campana.
In the breach of Curcuti.
On the banks and at the mouth of the river Canas.
On the river Del Platanar.
On the river de Pinganti.
On the river De Bayano.
In the breach De Terralbe.
In that of Platanar.
In that of Calobre.
In that of Pugibay.
In that of Marcelo.
On the river de Mange.

Under the juriſdiction of the ſame village are alſo the following Rancherias, ſituated to the northwards.

On the river Del Playon.
On the ſmaller river De la Conception.
On the river de Guanacati.
On the river Del Caco, or Mandinga.
On the river De Sarati.

3. The village of San Juan, ſituated on the road between Panama and Porto Bello, is inhabited by Mulattos and their deſcendants.

4. The village of Nueſtra Sinor de la Conſolation, a Negro ſettlement.

5. The village De la Santiſſima Trinidad de Chame, diſcovered by Captain Gonzalo de Badajoz, and called Chame from its prince at that time, is inhabited by Spaniards and Indians.

6. The village of St. Iſidro de Quinones, diſcovered by the ſame officer, and then governed by its prince Totronagua: its preſent inhabitants Spaniards and Indians.

7. The village of St. Franciſco de Paula, in the Cordillera; alſo inhabited by Spaniards and Indians.

8. The village of St. Juan de Pononome, ſo called from the name of its cacique; its inhabitants are Indians, who ſtill retain the bow and arrow, at which they are very dextrous, and of an intrepid bravery.

9. The village of Santa Maria is ſituated in a tract of land diſcovered by Gonzalo de Badajoz. The name of its laſt prince was Eſcolia; it is at preſent wholly inhabited by Spaniards.

10. The village of Santo Domingo de Parita, the laſt word being the name of its prince. It was formerly inhabited wholly by Indians, but at preſent there are many Spaniards among them.

11. Taboga, Taboguilla, and other iſlands, near which the pearl fiſheries are carried on, were diſcovered by the order of Pedro Arias Davila, the firſt governor and captain-general of the kingdom of Terra Firma. In theſe iſlands are houſes belonging to Spaniards, and huts for the Negro divers.

12. The

12. The iſlands del Rey were diſcovered by Gaſpar de Morales and Captain Franciſco Pizarro. In theſe iſlands ſome Spaniards have houſes, beſides great numbers of Negro divers.

Second Province of Terra Firma.

THE ſecond province of this kingdom is that of Veraguas, of which the city of Santiago is the capital. The firſt who diſcovered this coaſt was Admiral Chriſtopher Columbus, in 1503. To the river now called Veragua, he gave the name of Verdesaguas, on account of the green colour of its water; or, according to others, becauſe the Indians called it by that name in their language. But, however that may be, it is from this river that the province derives its name. In 1508, the Captains Gaſpar de Eſpinoſa, and Diego de Alvirez, renewed the diſcovery by land; but being repulſed by prince Urraca, were obliged to content themſelves with a ſettlement in the neighbourhood: and even here the Spaniards were not able to maintain their ground againſt the frequent incurſions of the Indians; ſo that, finding the abſolute neceſſity of a ſtronger ſettlement, they built the city of Santiago de Veraguas on the ſpot where it now ſtands.

Beſides this city, the province contains two others, and ſeveral villages.

The city of Santiago al Angel was founded in 1521 by Benedict Hurtado, governor of Panama: it has been twice deſtroyed and rebuilt: the inhabitants partly Spaniards, partly Mulattos.

The city of Nueſtra Senora de los Remedios de Pueblo-Nuevo; the inhabitants the ſame as thoſe of the former.

1. The villages in this province are San Franciſco de la Montana, inhabited by Indians uſing bows and arrows.
2. San Miguel de la Haya, inhabited by different ſorts of people.
3. San Marcelo de Leonmeſa de Tabarana, inhabited by Indians.
4. San Raphael del Guaymi, by Indians.
5. San Philipe del Guaymi, by Indians.
6. San Martin de los Caſtos, by Indians.
7. San Auguſtin de Ulate, by Indians.
8. San Joſeph de Bugava, by Indians.
9. and 10. La Piedad, and San Miguel, by Indians.
11. San Pedro, and San Pablo de los Platanares, by Indians.
12. San Pedro Noloſco, by Indians.
13. San Carlos, by Indians.

Third Province of Terra Firma.

THE third province of Terra Firma is that of Darien, where the greater part of the inhabitants are wandering Indians, living without any religion, and in the moſt ſhocking barbariſm, which was indeed the motive of their revolt. In 1716, there was here a conſiderable number of villages, Rancherias, and Doctrinas *, whoſe inhabitants had ſworn allegiance to the King of Spain, and therefore under the governors of Panama;

* A name, given by the Jeſuits, to Indian communities, which they have gathered together and civilized.

though, at preſent, very few are remaining. Thoſe remaining in the above-mentioned year, were,

1. The village and ſtaple for the mines of Santa Cruz de Cana, a very conſiderable ſettlement of Spaniards and Indians.

2. The village De la Conception de Sabalo, inhabited like the preceding, but leſs populous.

3. The village of San Miguel de Tayequa; inhabitants the ſame.

4. The village of San Domingo de Balſas, inhabitants like the others, being Spaniards and Indians.

5. Spaniſh village, in the territory of Santa Marica.

6. The Doctrina San Geronymo de Yabira, a word in the Indian language ſignifying Doncel, i. e. a virgin; and, for this reaſon, the river near it is called Rio Doncel, or Virgin River.

7. San Enrique de Capeti, or the ſleepy.

8. Santa Cruz de Pucro. In the Indian language, Pucro ſignifies a ſort of light wood, which, at Guayaquil, is called Balſa.

9. The Doctrina de San Juan de Tacaracuna, and Matarnati; the names of two of the mountains of the Andes, contiguous to the community.

10. The Indian village of San Joſeph de Zete-Gaati, is not a Doctrina. Zete-Gaati is the name of a kind of willow growing in the neighbourhood.

Rancherias and Hamlets in the Southern Parts.

The hamlet of Nueſtra Senora del Roſario de Rio Congo.
Other hamlets on the rivers Zabalos, Balſas, and Uron.
On the river Tapanacul.
On the river Pucro.
On the banks, and at the mouth of the river Paya.
At Los Paparos, or the Peaſants.
On the river Tuqueſa.
On the river Tupiſa.
On the river Yabiſa.
And at Chepigana.

Rancherias and Hamlets in the Northern Parts.

On the river Queno.
On the Seraque.
On the Sutagunti.
On the Moreti.
On the Agrafenequa.
On the Ocabajanti.
On the Uraba.

All theſe Doctrinas and communities were formerly of Indians, and not inconſiderable, ſome of the latter conſiſting of four hundred perſons; but their general number was between one hundred and fifty and two hundred; from whence we may form an idea of the populouſneſs of theſe Doctrinas. But, to ſave the trouble of computing

the ſeveral inhabited places in this kingdom, as I thought proper to inſert their names, I ſhall conclude with a conciſe liſt of all theſe places, which will aſſiſt the reader in forming ſome idea of this country.

Recapitulation of all the inhabited Places in the Kingdom of Terra Firma.

Four fortreſſes.
Six cities.
One town of Spaniards and Indians.
Thirty-five villages - - { Eleven of Spaniard and Indians. / Two of Mulattos and Negroes. / Twenty-two of Indians, moſt of them Doctrinas.

Thirty-two Rancherias or hamlets, each containing ſeveral cottages ſcattered among the breaches, along the ſides of rivers and ſavannahs.

Forty-three iſlands, where the pearl-fiſhery is carried on, ſome of them in the bay of Panama, ſome near the coaſt of that city, and others ſouth of Veraguas.

BOOK IV.

VOYAGE FROM PERICO HARBOUR TO GUAYAQUIL.

CHAP. I. — *Voyage from Perico to the City of Guayaquil.*

OUR tents and other neceſſaries being ready, we all embarked on board the St. Chriſtopher, captain Don Juan Manuel Morel; and the next day, being the 22d of February 1736, we ſet ſail; but having little wind, and that variable, it was the 26th at ſunſet before we loſt ſight of the land, the laſt we ſaw being Punta de Mala.

By remarks repeatedly made till we loſt ſight of this laſt point, and which agreed with obſervations, but differed from thoſe by account, we found the ſetting of the current to be ſouth-weſt 5° weſterly; which obſervation correſponded with the accounts given us by able pilots, who aſſured us it continued to three or four degrees of latitude; and, according to their farther information, we corrected our daily account at one mile and one ſixth per hour; and found their information to be well founded. But it is neceſſary to obſerve, that, till our ſhip was off Punta de Mala, there was no viſible current; and that, whilſt we continued ſailing in the gulf of Panama, the latitude by account agreed with the obſerved.

From the time we ſet ſail, till Punta de Mala bore from us north-weſt 6° 30′ weſterly, we continued to ſteer S. S. W. 1° 20′ and 8° 30′ weſterly: the winds variable with calms.

After paſſing Punta de Mala, we ſteered S. between 8° weſterly and 2° 30′ eaſterly, till ſix in the evening of the firſt of March 1736, when we diſcovered the land contiguous to St. Matthew's bay. Upon which we ſtood to the S. W. to avoid a ledge of rocks, which runs three leagues into the ſea, and alſo the currents, which ſet towards it, and Gorgona bay.

This ledge of rocks was diſcovered in 1594, by a ſhip's ſtriking on it.

From St. Matthew's bay, we, for ſome hours, ſteered ſouth-weſt 6° 15′ weſterly; and the next day ſouth-eaſt and one-fourth ſoutherly; which, being the third day, at one in the afternoon, brought us in ſight of Cape St. Francis, bearing north one-fourth eaſterly.

According to the reckoning of Don George Juan, the difference of meridians between Panama, and Cape St. Francis was 0° 36′; which nearly agrees with the map of this coaſt. It muſt, however, be ſuppoſed that the diſtance between each knot on the log-line was forty-ſeven feet by five and an half royal inches, which is equal to fifty and an half Engliſh feet: this confirms what we have already obſerved, book I. chap. i. and proves the juſtneſs of our obſervations on the currents.

Having weathered this cape, we ſteered weſt 3° ſoutherly; ſouth-weſt 3° weſterly; and on the 6th and 7th ſouth 7° eaſterly, and ſouth-eaſt 6° eaſterly; till on the 7th, at eight in the morning, we again made Cape St. Francis, bearing north 5° eaſterly, and Cape Paſſado ſouth; after which we coaſted along ſhore, obſerving the moſt remarkable parts, till the 9th, when, at half an hour after three in the evening, we came to an anchor in Manta bay, in eleven fathom water, the bottom mud mixed with ſand: Cape St. Lorenzo, bearing weſt-ſouth-weſt and Monte Chriſto ſouth-ſouth-eaſt 6° eaſterly.

Two reaſons induced us to anchor here: the firſt was, that as part of the intention of our original voyage was to meaſure ſome degrees of the equator, beſides thoſe of the meridian; and having been informed at Panama of the ſituation of this coaſt, we were deſirous of viewing it, in order to know whether, by forming our firſt baſe on its plains, the ſeries of triangles could be continued to the mountains contiguous to Quito: the ſecond, the want of water and proviſions; for the ſeaſon being pretty far advanced, we had flattered ourſelves, while at Panama, with falling in with the briſas, and by that means of ſoon reaching Guayaquil; and had therefore taken in proviſions only for ſuch a ſhort voyage.

In order to ſatisfy ourſelves with regard to our firſt and principal view, we all went on ſhore on the 10th in the evening to the village of Monte Chriſto, about two leagues and a half from the coaſt. But we ſoon found any geometrical operations to be impracticable there, the country being every where extremely mountainous, and almoſt covered with prodigious trees, an inſurmountable obſtruction to any ſuch deſign. This being farther confirmed to us by the Indian inhabitants, we determined to purſue our voyage to Guayaquil, and thence to Quito. Accordingly, on the 11th we returned to the coaſt of Manta, where, whilſt the ſhip was taking in water and proviſion, we employed ourſelves in making obſervations, by which we found the latitude of this place to be 56′ 5½″ ſouth. But Meſſrs. Bouguer and De la Condamine, reflecting that our ſtay at Guayaquil would be conſiderable before the ſeaſon would permit the mules to come from Guaranda to carry us to the mountains, and deſirous of making the beſt uſe of their time, determined to ſtay here, in order to make further obſervations on the longitude and latitude, that they might aſcertain the place where the equator cuts this coaſt, examine the length of the pendulum, and make other obſervations equally important. Accordingly proper inſtruments were left with them.

On the 13th of the ſame month of March, our veſſel put to ſea, keeping along the coaſt, and paſſed the next day within the iſland de la Plata. The 15th we began to loſe ſight both of Cape St. Lorenzo, and alſo of the iſland; at one in the afternoon we ſteered ſouth-ſouth-eaſt, till the 17th, when we diſcovered Cape Blanco, the ſouth point of the Bay of Guayaquil. From Cape Blanco we coaſted along the bay, till, about noon on the 18th, coming to the mouth of the river Tumbez, we

anchored about half a league from the land; the river's mouth bearing eaſt five degrees northerly, and the iſland of Santa Clara, commonly called Amortajado, or Muerto, from its reſembling the figure of a human corpſe, north four degrees eaſterly, in fourteen fathoms water, and a muddy bottom.

Some particular affairs of the captain of the ſhip obliged us to remain here till the 20th, when, at ſix in the morning, we weighed; and at half an hour after ſix in the evening, the ſtrength of the current on the ebb obliged us to come to an anchor. Thus we continued anchoring every ebb, and ſailing during the flood. And here we found that the current always ſets out of the bay, though with much leſs velocity on the flood than on the ebb; for we obſerved that the tide never altered its direction in nineteen hours and a half. The cauſe of this phenomenon is ſuppoſed to be, the prodigious quantity of water diſcharged into it by the rivers. On the 23d, having come to an anchor off Punta de Arenas in the iſland of Puna, we ſent on ſhore for a pilot to carry in our ſhip; for, though the diſtance was only ſeven leagues, the great number of ſhallows in this ſhort paſſage rendered a precaution of this kind prudent, if not abſolutely neceſſary; and on the 24th, at ſeven in the morning, we ſafely anchored in Puna harbour, Cape Centinela bearing ſouth-ſouth-weſt 2° 30′ weſterly, and Cape Maria Mandinga weſt-north-weſt 1° 15′ weſterly, diſtant one quarter of a league.

From Punta de Mala to St. Matthew's bay, we had the wind firſt at north, and north-weſt; afterwards it ſhifted to the north-eaſt, and during the laſt day veered to the eaſt-north-eaſt; but when we came in ſight of this bay, changed again to north, being preceded by rains, which continued till our arrival at Manta, the winds having ſhifted to the ſouth-eaſt, ſouth, and ſouth-weſt and weſt, but with ſome variations from all thoſe points.

I have already mentioned that at St. Matthew's bay it was not only the opinion of the pilots relating to the currents which ſet towards Gorgona, but alſo our own experience, that induced us to alter our courſe, which was neceſſary, in order to continue our voyage. All the reſt of the coaſt, from Cape St. Francis to Manta, they ſet to the north, and this prevented us from getting to windward, and obliged us to tack, as the wind was contrary.

In our paſſage from Manta to Cape Blanco, the winds were not leſs favourable, continuing as before, except a few gales at north-weſt and north-north-eaſt, till we made the above cape. The currents here alſo ſet to the northward, and from Cape Blanco to Puna harbour, to ſeaward, that is, towards the weſt; but, as we have before obſerved, a greater velocity on the ebb than on the flood.

Being very deſirous of obſerving an eclipſe of the moon, which was to happen on the 26th of March, and our time for preparing for it being but ſhort, we concluded to ſtay at a little village ſituated in this harbour; but finding theſe houſes, which were entirely built of canes, too weak to ſupport the pendulum, we determined to make the beſt of our way to Guayaquil; and accordingly, at half an hour after eleven at night we left the ſhip at anchor, and went to the city in a boat; and, at five in the evening of the 25th, by the vigour of our rowers, we arrived at Guayaquil, notwithſtanding the ſtrength of the tide againſt us. Here we immediately applied ourſelves to ſettle the pendulum; but our diligence was entirely fruſtrated, the air being ſo filled with vapours, that nothing was to be ſeen.

It may not be amiſs here to inſert the variations we obſerved in different parts of the South Sea, in the ſame order with thoſe obſerved from Cadiz to Carthagena.

A Table

A Table of Variations obſerved in ſeveral Parts of the South Sea, the Longitude reckoned from the Meridian of Panama.

Latitudes. deg. min.	Longitude. deg. min.	Variation. deg. min.
8 17N.	359 55	8 45E.
7 49	359 42	7 34
7 30	359 31	7 49
7 02	359 18	7 59
3 55	358 21	7 34
0 56	358 43	7 20
0 36	359 06	8 29
0 20	358 40	7 25
0 15	358 56	7 30
0 22 S.	359 50	8 17
0 51	Monte Chriſto, bearing S. E. ¼ ſoutherly	8 00
Iſland de la Plata, bearing ſouth 15° 45′ weſterly, and Monte Chriſto, E. S. E.		7 46
2 18S.		8 00
Cape Blanco, S.S.W.		3 30 W.
Punto de Mero, E. 7° northerly diſtant three leagues		8 100
On the coaſt of Sumber, of which the latitude by obſervation was 3° 14′		8 11

We ſhould, for ſeveral days, have been without knowing certainly the latitude, an object of the laſt importance in any voyage, had not Mr. Godin had the precaution to take with him a Hadley's quadrant. This ingenious gentleman having been pitched upon for the voyage to America, undertook a journey to London, purely to purchaſe ſeveral inſtruments, and among others bought that already mentioned, and which proved of the greateſt uſe to us in finding the latitude during this paſſage; a point the more difficult and neceſſary, on account of ſeveral perplexing circumſtances, the courſe being ſometimes north, ſometimes ſouth, and the currents ſetting in the ſame direction. Aſſiſted by this inſtrument, we were enabled to take the meridian altitude of the ſun, whilſt, from the denſity of the vapours which filled the atmoſphere, the ſhadow could not be defined on the uſual inſtruments.

CHAP. II. — *Account of the Voyage from Perica to Puna.*

THE briſas, by their return, as we before obſerved, occaſion an alteration in the weather of Panama, by introducing the ſummer, as they alſo do in the paſſage from Perico

Perico to Puna, or more properly, to Cape Blanco; for, after the briſas have begun to blow at Panama, they gradually increaſe and ſpread in oppoſition to the ſouth winds, till, overcoming them, they are ſettled: but their periods are not always equal, either on the land or in the ocean. Generally the briſas do not reach beyond the equator, or are ſo faint, as often to be interrupted by calms, or other weak and unſettled winds. Sometimes, indeed, they have an extraordinary ſtrength, being felt even to the iſland of Plata: but their greateſt force is gradually increaſed as we approach nearer to Panama. Theſe winds, which blow from between the north and north-eaſt, clear the atmoſphere, free the coaſt from fogs, and are not attended with tempeſts of rain; but frequently ſo ſqually, eſpecially between Cape Franciſco and the Bay of Panama, that, without particular care and the utmoſt diſpatch in putting the ſhip in a proper condition, they are often dangerous.

At the period of the briſas, the ſures or ſouth winds begin to blow, and, when ſettled, are more violent than the former. But they do not, as many have imagined, blow always preciſely from the ſouth; for they ſhift from the ſouth-eaſt even to the ſouth-weſt, and their diſtance from the ſouth is obſerved to be greateſt at particular times. When they incline to the ſouth-eaſt, which is the land ſide, they are accompanied with violent, but happily ſhort tempeſts of wind and rain. The ſhips which trade from the coaſts of Peru and Guayaquil to Panama, generally ſail during the ſures, in order to take the benefit of the north wind at their return, and, by that means their voyages are eaſily and expeditiouſly performed. Sometimes, indeed, they ſail with other winds, though they are generally longer at ſea, in order to reach Paita; but often this diligence, or rather avarice, is ſo far diſappointed, that they are obliged to put in at Tumaco, Acames, Manta, or Punta de Santa Elena, for proviſions and water.

Theſe are the principal winds in this paſſage; and whatever changes may ſometimes happen, they are not of any continuance, the ſettled wind ſoon recovering its place.

The currents in theſe parts are not ſo regular as the winds; for, during the briſas, the waters run from Morro de Puercos ſouth-weſt and weſt, to the height of Malpelo; and from thence eaſt and eaſt-ſouth-eaſt to Cape St. Francis, inclining ſomething towards Gorgona. From Cape St. Francis, their direction is ſouth and ſouth-weſt, which continues for thirty or forty leagues ſeawards, the ſtrength of them being proportionate to that of the briſas.

During the ſeaſon of the ſures, or ſouth winds, the currents run north and north-weſt from Punta de Santa Elena, as far as Cape St. Francis, extending thirty or forty leagues ſeawards; from hence they run with a great velocity eaſt, as far as the meridian of Malpelo; and from Morro de Puercos ſouth-eaſt along the coaſt, though at ſome diſtance from it, and tending partly to the bay of Gorgona. But from the meridian of Malpelo to Morro de Puercos, they run with great violence north-weſt and weſt. Alſo in the paſſage from Cape Blanco to Cape Santa Elena, a violent current runs weſt from the river of Guayaquil, during its ſwellings; but when the river is low, the current ſets into Puna bay: the time of the former is during the briſas, and the latter in the ſeaſon of the ſures.

At all times, in leaving Perico to ſail to Guayaquil, or the coaſt of Peru, care muſt be taken to keep at a proper diſtance from the iſland of Gorgona, many inſtances having happened of ſhips being loſt either by this negligence, or more frequently, by calms. It is alſo equally neceſſary to be careful of the iſland of Malpelo; but the latter is of the two the leaſt dangerous, as the greateſt detriment is only a longer delay of the voyage.

If

If a ſhip happens to come in ſight of the iſland of Gorgona, it will be found very difficult to get clear of it by ſteering either ſouth-ſouth-weſt, or even north, ſo that the ſureſt method is to return towards Panama along the coaſt, the currents there changing their direction; at the ſame time taking care not to keep at a great diſtance from it, to avoid being again carried away by the current, which ſets ſouth-eaſt.

The land all along the coaſt from Panama to Santa Elena is of a middling height, except in ſome parts, where we diſcern mountains at a vaſt diſtance, and very high; being part of the Cordillera. Monte Chriſto is the land-mark of Manta, being a high mountain, and having a village of the ſame name at its foot.

In the bays along this coaſt, and particularly at the mouths of rivers, it is dangerous to keep cloſe to the ſhore, there being many ſhallows not known even to the pilots of the country. In the bay of Manta, there is one at the diſtance of three or four leagues from the ſhore, on which ſeveral ſhips have ſtruck; but the water is here ſo ſmooth, that all the damage they ſuſtained was, their being obliged to be immediately careened, in order to ſtop the leaks occaſioned by the accident.

In all this paſſage a rough ſea is ſeldom met with; for, if it be ſometimes agitated by ſqualls and ſhort tempeſts, it ſoon ſubſides after the ſtorm is over. Whilſt the ſouth winds prevail, fogs are very frequent, and ſometimes ſo thick as totally to preclude all ſight of the coaſt. This we ourſelves partly experienced in our paſſage: whereas during the briſas, it is quite the contrary: the air is ſerene, and the coaſt ſo clear as to be approached with confidence and ſafety.

CHAP. III.—*Of our Stay at Guayaquil, and the Meaſures taken for our Journey to the Mountains.*

THE ſhip St. Chriſtopher, which we left at Puna, followed us ſo ſoon, that on the 26th in the evening ſhe came to an anchor before the city; the next day all our baggage and inſtruments were landed, and we began our obſervations for determining the ſituation of Guayaquil, with regard to its latitude and longitude. The deſire of ſucceeding rendered us very attentive to obſerve an immerſion of the ſatellites of Jupiter, to make amends for our diſappointment of the eclipſe of the moon; but we were in this equally unfortunate; the denſity of the vapours which filled the atmoſphere rendered our deſign abortive; but, the days being more favourable than the nights for aſtronomical obſervations, we took ſeveral meridian altitudes of the ſun, and never neglected any opportunities that offered, during the nights, of doing the ſame with regard to ſome particular ſtars.

On our arrival at Guayaquil, the corregidor of that city, whoſe great civility, together with that of all the King's officers and other perſons of diſtinction, deſerves our acknowledgments, ſent notice of it to the corregidor of Guaranda, that he might order carriages to the port of Caracol, for conveying us to the mountains. The paſſage thither was then indeed impracticable; it being in this country the end of winter, at which time the roads are extremely bad, and the rivers ſwelled ſo as not to be forded without the greateſt riſk, and too wide for the bridges of this country.

The corregidor of Guaranda was then at Quito on ſome buſineſs of his office; but the preſident and governor of that province, Don Dionyſio de Alcedoy Herrera, ordered him to return to his juriſdiction without delay, for providing every thing neceſſary for our journey; ſending, at the ſame time, circular orders to all the other corregidors, through whoſe juriſdictions we were to paſs to Quito, enjoining them not to be wanting

wanting in any kind of good office in their power. Every thing being thus happily diſpoſed, and advice arriving that the mules were on their way to Caracol, where they arrived the 6th of May, we were no leſs expeditious to embark on the river, which is the uſual paſſage. There is indeed a road by land; but at all times extremely difficult and dangerous, on account of the many bays and large rivers which muſt be paſſed; ſo that no perſon travels this road but in ſummer, and then only ſuch as have no baggage, and are, beſides, well acquainted with the country and the ferries.

CHAP. IV. — *Deſcription of Guayaquil.*

THOUGH there is no certainty with regard to the time when Guayaquil was founded, it is univerſally allowed to be the ſecond city of Spaniſh origin, both in its own province and the kingdom of Peru; it appearing, from antient records preſerved in its archives, that it was the next city founded after San Miguel de Piura: and the foundation laid of Los Reyes, Remac, or Lima, being in 1534, or according to others, in 1535, the building of Guayaquil may be fixed between thoſe two years; but the proſperity it attained under its governor Belalcazar, was of no long continuance, being, after ſeveral furious attacks, entirely deſtroyed by the neighbouring Indians. It was however in 1537, rebuilt by Captain Franciſco de Orellana. The firſt ſituation of Guayaquil was in the bay of Charapoto, a little to the northward of the place where the village of Monte Chriſto now ſtands; from whence it was removed to the preſent ſpot, which is on the weſt bank of the river of Guayaquil, in 2° 11′ 21″ of ſouth latitude, as appeared from our obſervations. Its longitude was not determined by any accurate obſervations; but by computing it from thoſe made at Quito, it is 297° 17′, reckoning from the meridian of Teneriffe. On its removal by Orellana, from its firſt ſituation, it was built on the declivity of a mountain called Cerillo Verde, and is now termed Ciudad Vieja, or the old town. Its inhabitants being afterwards ſtraitened by the mountain on one ſide, and by ravines or hollows made by floods of rain on the other, formed a deſign, without entirely abandoning the place, to build the principal part of the city at the diſtance of five or ſix hundred toiſes; which was accordingly begun in 1693; and for preſerving a communication with the old part, a bridge of timber was erected, of about three hundred toiſes in length, by which means the inconveniences of the ravines are avoided, and, the intervals being filled with ſmall houſes, the old and new towns are now united.

This city is of conſiderable extent, taking up, along the bank of the river from the lower part of the old town to the upper part of the new, near half a league; but the breadth is not at all proportional, every perſon being fond of having a houſe near the river, both for the amuſements it affords, and for the benefit of refreſhing winds, which, in winter, are the more eagerly coveted as they are very rare.

All the houſes of both towns are built of wood, and many of them covered with tiles; though the greater part of thoſe in the old town are only thatched; but in order to prevent the ſpreading of fires, by which this city has ſeverely ſuffered on ſeveral occaſions, ſuch covering is now prohibited. Moſt of theſe conflagrations owed their riſe to the malevolence of the negroes, who, in order to revenge ſome puniſhments inflicted on them by their maſters, took the opportunity, during the night, of throwing fire on the thatch, and by that means, not only ruined thoſe who were the immediate objects of their revenge, but alſo the greater part of the inhabitants of the city.

Though the houſes are wholly built of wood, they are generally large and beautiful; have all one ſtory and an entreſole; the back part of the ground floor ſerves for warehouſes; in the front are ſhops of all kinds, and generally before them ſpacious porticos, which in winter are the only parts where you can walk, the ſtreets being utterly impaſſable.

As a further precaution againſt fire, which they have ſo much reaſon to dread, the kitchens ſtand twelve or fifteen paces from the houſes, with which they communicate by means of a long open gallery, reſembling a bridge; but ſo lightly built, that on the leaſt appearance of fire in the kitchen, it is demoliſhed in an inſtant; by which means the houſe is preſerved. Perſons of rank and fortune live in the upper apartments, and the entreſoles are let to ſtrangers who come to trade, or paſs through the city with their goods.

The ground on which the new city is built, and the ſavannahs in its neighbourhood, are not to be travelled over either on foot or horſeback during the winter; for, beſides being a ſpongy chalk, it is every where ſo level, that there is no declivity for carrying off the water; and therefore on the firſt rain, it becomes one general ſlough. So that, from the time of the rains ſetting in till the end of winter, it is neceſſary to lay in the parts not covered by the above-mentioned piazzas, very large planks for croſſing over them; but theſe ſoon become ſlippery, and occaſion frequent falls into the chalky ſlough. The return of ſummer, however, ſoon exhales the water, and renders the ground ſufficiently dry for travelling. In this reſpect the old town has the advantage, being built on a gravelly ſoil, which is never impaſſable.

This city is defended by three forts, two on the river near the city, and the third behind it, guarding the entrance of a ravine. Theſe are all built after the modern method of fortification; but before they were erected, it had only a platform, which is ſtill remaining in the old town. Theſe forts are built of large pieces of very hard wood, forming a variety of palliſades, and the wood is particularly proper for this country, and the uſe it is here applied to; retaining its ſolidity either under the water or in the mud. Before theſe fortifications were erected, the city was taken by European corſairs, in the year 1686 and 1709; but the ſucceſs of the latter was owing to the villainy of a mulatto, who, in order to revenge himſelf on ſome particular perſons in the city, conducted the enemy through a bye-way, where they were not expected; ſo that the inhabitants being ſurpriſed, were not prepared for defence.

All the churches and convents are of wood, except that of St. Domingo, ſtill ſtanding in the old town, which is of ſtone; the great ſolidity of the ground in that part being ſufficient for ſupporting buildings of this kind. The convents in the new city, beſides the parochial church, are an Auguſtine and a Franciſcan, with a college of Jeſuits; the members of them not very numerous, on account of the ſmallneſs of the revenues. Here is alſo an hoſpital, but without any other endowment than the ſhell of the building. The city and its juriſdiction are under a corregidor, nominated by the King, who holds his office during five years. Notwithſtanding he is ſubordinate to the preſident and audience of Quito, he appoints the deputies in the ſeveral departments of his juriſdiction; and, for the police and civil government, Guayaquil has ordinary alcaldes and regidores. The revenue is managed here by a treaſurer and an accomptant, who receive the tributes of the Indians, the duties on imports and exports, and the taxes on commodities, which are either conſumed there, or carried through it.

The eccleſiaſtical government is lodged in the biſhop of Quito's vicar, who is generally alſo the prieſt of the town.

CHAP.

CHAP. V. — *Of the Inhabitants, Cuſtoms, and Riches of Guayaquil.*

GUAYAQUIL contains, in proportion to its dimenſions, as many inhabitants as any city in all America; the continual reſort of ſtrangers, drawn thither by commerce, contributing very greatly to increaſe the number, generally computed at twenty thouſand. A great part of its eminent families are Europeans, who have married there; beſides which, and ſubſtantial Creoles, the other inhabitants are of different caſts, as in the cities already deſcribed.

The inhabitants capable of bearing arms, are divided into companies of militia, according to their rank and caſt; ſo that on occaſion they may be ready to defend their country and property. One of theſe, conſiſting entirely of Europeans, and called the foreign company, is the moſt numerous, and makes the moſt ſplendid appearance among the whole militia. Without conſidering their wealth or ſtation, they appear in arms, and pay a proper obedience to their officers, who are choſen by themſelves from their own body, being generally ſuch as have ſerved in Europe, and conſequently more expert in military affairs. The corregidor is the commander in chief; having under him a colonel and major, for diſciplining the other companies.

Though the heat here is equal to that of Panama, or Carthagena, yet the climate diſtinguiſhes itſelf in the colour of the human ſpecies; and if a certain author has ſtyled it the equinoctial Low Countries, in alluſion to the reſemblance it bears to the Netherlands of Europe, it may, with equal propriety, bear that appellation from this ſingularity, namely, that all the natives, except thoſe born from a mixture of blood, are freſh-coloured, and ſo finely featured, as juſtly to be ſtyled the handſomeſt, both in the province of Quito, and even in all Peru. Two things are here the more remarkable, as being contrary to common obſervation: one, that notwithſtanding the heat of the climate, its natives are not tawny; the other, that though the Spaniards have not naturally ſo fair a complexion as the nothern nations, their children born here of Spaniſh women are very fair; nor has this phenomenon hitherto been ſufficiently explained. To attribute it to the effluvia exhaling from the contiguous river, appears to me little ſatisfactory; other cities having the ſame advantageous ſituation, without producing any improvement in the complexions of the inhabitants; whereas here fair perſons are the moſt common, and the children have univerſally light hair and eye-brows, and very beautiful faces.

To theſe perſonal advantages beſtowed by nature in a diſtinguiſhed manner on the inhabitants, it has added the no leſs pleaſing charms of elegance and politeneſs; ſo that ſeveral Europeans, who intended only a ſhort ſtay here, have married and ſettled; nor were their marriages owing to the immenſe fortunes of their ladies, as in ſome other cities of this country, the inhabitants not being at all famous for their riches.

The dreſs of the women at Guayaquil nearly reſembles that at Panama, except only when they either pay or receive a viſit; inſtead of the pollera, they wear a ſaldellin, which is no longer than the pollera, but being open before, and croſſing one ſide over the other, is adorned in the moſt profuſe manner. It is furbeloed with a richer ſtuff, near half a yard in depth, and bordered with fine laces, gold or fringe, or ribands, diſpoſed with an air which renders the dreſs extremely rich and becoming. When they go abroad without a veil, they wear a light brown-coloured mantelet, bordered with broad ſtrips of black velvet, but without laces or any other decorations. Beſides necklaces and bracelets, they wear roſaries, of the ſame degree of richneſs as

at Panama; and not only load their ears with brilliant pendants, but add tufts of black ſilk, about the ſize of a filbert, and ſo full of jewels, as to make a very ſplendid appearance.

From the commerce of this city, a ſtranger would imagine it richer than it actually is. This is partly owing to the two dreadful pillages it has ſuffered, and partly to fires, by both which it has been totally ruined. And though the houſes here, as already obſerved, are only of wood, the whole charge of which is the cutting and bringing it to the city; yet the expence of a houſe of any figure amounts to fifteen or twenty thouſand dollars, workmen's wages being very high, and iron remarkably dear. Europeans, who have raiſed any thing of a fortune here, when they have no immoveable goods to detain them, retire to Lima, or ſome other city of Peru, where they may improve their ſtocks with greater ſecurity.

CHAP. VI. — *Of the Temperature of the Air, and the different Seaſons at Guayaquil; its Inconveniences and Diſtempers.*

IN Guayaquil, the winter ſets in during December, ſometimes at the beginning, ſometimes in the middle, and ſometimes not till the end of the month, and laſts till April or May. During this ſeaſon, the elements, the inſects, and vermin, ſeem to have joined in a league to incommode the human ſpecies. Its extreme heat appeared from ſome thermometrical experiments; for, on the 3d of April, when its intenſeneſs had begun to abate, at ſix in the morning the liquor ſtood at one thouſand and twenty-two; at noon at one thouſand and twenty-five; and at three in the afternoon at one thouſand and twenty-ſeven; which ſhews the heat in the middle of winter to be greater than at Carthagena. The rains alſo continue day and night, accompanied with frequent and dreadful tempeſts of thunder and lightning; ſo that every thing ſeems to conſpire to diſtreſs the inhabitants. The river, and all thoſe which join it, overflow their banks, and lay under water the whole country. The long calm renders the refreſhing winds very deſirable; and the innumerable ſwarms of inſects and vermin infeſt both the air and ground in an intolerable manner.

The ſnakes, poiſonous vipers, ſcorpions, and ſcolopendræ, in this ſeaſon find methods of getting into the houſes, to the deſtruction of many of the inhabitants. And though they are not actually free from them all the reſt of the year, yet at this time they are far more numerous, and alſo more active; ſo that it is abſolutely neceſſary to examine carefully the beds, ſome of theſe animals having been known to find their way into them: and both as a ſafeguard againſt the danger, and to avoid the tortures of the moſchitos and other inſects, all perſons, even the Negro ſlaves and Indians, have toldos or canopies over their beds. Thoſe uſed by the lower claſs of people are made of tucuyo, or cotton, wove in the mountains: others uſe white linen laced, according to the temper or ability of the owner.

Though all theſe hot and moiſt countries ſwarm with an infinite variety of volatile inſects, yet the inhabitants are no where ſo greatly incommoded as at Guayaquil, it being impoſſible to keep a candle burning, except in a lantern, above three or four minutes, numberleſs inſects flying into its flame and extinguiſhing it. Any perſon therefore being obliged to be near a light, is ſoon driven from his poſt by the infinite numbers which fill his eyes, ears, and noſtrils. Theſe inſects were almoſt inſupportable to us, during the ſhort clear intervals of ſome nights, which we ſpent in making obſervations on the heavenly bodies. Their ſtings were attended with great tortures; and more than

than once obliged us to abandon our obſervations, being unable either to ſee or breathe for their multitudes *.

Another terrible inconvenience attending the houſes here, are the numbers of pericotes, or rats; every building being ſo infeſted with them, that, when night comes on, they quit their holes, and make ſuch a noiſe in running along the ceiling, and in clambering up and down the ſides of the rooms and canopies of the beds, as to diſturb perſons not accuſtomed to them. They are ſo little afraid of the human ſpecies, that, if a candle be ſet down without being in a lantern, they immediately carry it off; but, as this might be attended with the moſt melancholy conſequences, care is taken, that their impudence is ſeldom put to this trial, though they are remarkably vigilant in taking advantage of the leaſt neglect. All theſe inconveniences, which ſeem inſupportable to ſtrangers, and alone ſufficient to render ſuch a country uninhabited, little affect the natives, as having been uſed to them from their infancy: they are more affected with cold on the mountains, which the Europeans ſcarce feel, or, at leaſt, think very moderate, than with all theſe diſagreeable particulars.

The leaſt troubleſome ſeaſon is the ſummer, as then both the number and activity of theſe vermin are diminiſhed; it being a miſtake in ſome authors to ſay they abound moſt in that ſeaſon. The heat is then abated, by the ſetting in of the ſouth-weſt and weſt-ſouth-weſt breezes, called here chandui, as coming over a mountain of that name. Theſe begin conſtantly at noon, and continue to refreſh the earth till five or ſix in the following morning. The ſky is always ſerene and bright, the gentleſt ſhowers being rarely known. Proviſions are in greater plenty, and thoſe produced in the country of a very agreeable taſte, if uſed while freſh. Fruits are more common, eſpecially melons and water-melons, which are brought in large balzas † to the city. But the capital advantage is the remarkable ſalubrity of the air in that ſeaſon.

During the winter, tertian fevers are very common, and are here particularly painful and dangerous, owing partly to neglect, and partly to an averſion to the uſe of the bark, being prepoſſeſſed with a notion, that on account of its hot quality it can have no good effect in that climate; ſo that, blinded with this prejudice, without ever conſulting phyſicians, who would undeceive them, they ſuffer the diſtemper to prey upon them, till they are often reduced to an irrecoverable ſtate. The natives of the mountains, who are inured to a cold air, cannot endure that of Guayaquil, it having a natural tendency to debilitate them; and by an intemperate uſe of its delicious fruits they throw themſelves into thoſe fevers, which are as common to them in one ſeaſon as another.

Beſides this diſeaſe, which is the moſt general, ſince the year 1740 the black vomit has alſo made its appearance, the galleons of the South Sea having, on account of the war, touched here in order to ſecure the treaſure among the provinces of the Cordillera. At that time great numbers died on board the ſhips, together with many foreigners, but very few of the natives. In ſaying that the galleons brought this diſtemper to Guayaquil, I follow the general opinion, as it was before that epocha unknown there.

The natives are very ſubject to cataracts, and other diſtempers of the eye, which often cauſe a total blindneſs. Though theſe diſtempers are not general, yet they are much more common than in other parts; and I am inclined to think it proceeds from the aqueous exhalations during the winter, when the whole country is overflowed with water, and which, from the chalky texture of the ſoil, muſt be viſcid in the higheſt

* This account is too hyperbolical. They are, however, troubleſome enough, and almoſt inſupportable, throughout all South America, except in the plains and deſerts. A.

† Called by the natives jungadas: they are rafts made by pinning or tying ſeveral bodies of ſmall trees together: the author deſcribes them particularly in the next chapter. A.

degrees;

degree; and, penetrating the external tunic, not only foul the cryſtalline humour, but alſo cover the pupil, from whence cataracts, and other diſorders of the eyes, have their origin.

CHAP. VII. — *Proviſions, and Manner of Living at Guayaquil.*

HERE, as at Carthagena, nature and neceſſity have introduced ſeveral kinds of bread, made from different grains and roots, to ſupply the want of wheat. The moſt uſual here is the criollo, or natural bread, being unripe plantanes, cut into ſlices, roaſted, and ſerved up as bread. But this is not entirely owing to neceſſity, as ſeveral kinds of meal might eaſily be brought from the neighbouring mountains in ſufficient quantities to ſupply all the inhabitants of the city; though only a ſmall ſhare of it would fall to the lot of the poor, on account of the price, which vaſtly exceeds that of the plantanes. However this be, the latter are deſervedly preferred to wheat bread, which is ſo badly made, that even the Europeans refuſe to eat it, and accuſtom themſelves to the criollo, which is far from being unpalatable.

Moſt of the other proviſions, except beef, fruits, and roots, are imported from the provinces of the Cordilleros and Peru. It would naturally be expected, that the ſeveral branches of this river, which abounds in fiſh, would cauſe a great plenty of them in the city; but it is quite otherwiſe, and the ſmall quantity caught near it is far from being good, and ſo bony, that none but the inhabitants can eat them without danger. Their badneſs in the neighbourhood of the city is probably owing to the brackiſh water; but ſome leagues above the city, the river affords a great ſupply of what is very excellent. In ſuch hot climates, however, they cannot be kept without ſalt; and it is ſeldom the fiſhermen venture to carry any to the city, leſt, after all their labour, they ſhould be obliged to throw them away.

The coaſts and neighbouring ports abound in very delicious fiſh, ſome of which are carried to the city, as keeping better than the ſpecies in the river; and theſe, together with ſeveral of the teſtaceous kind, conſtitute a conſiderable part of the food of the inhabitants of Guayaquil. In the ſalt creek are taken very large and fine lobſters, of which they make delicious ragouts: and from Jambeli creek, on the coaſt of Tumbez, are brought great quantities of oyſters, which, in every reſpect, ſurpaſs thoſe of all the coaſts from Panama to Peru, where there is alſo a great demand for them.

The ſame cauſe which drives from that part of the river near the city the fineſt fiſh, ſome to the ſalt and others to the freſh waters, according to their reſpective natures, renders good water very ſcarce at Guayaquil, eſpecially in ſummer; none being to be had at a leſs diſtance than four or five leagues up the river, according to the height of its waters. Many balzas are therefore employed in fetching water, and ſelling it to the inhabitants. During the winter, this trade is partly at a ſtand, as, by the increaſe of the rivers, the water at Guayaquil is rendered fit for uſe.

Inſtead of lard, as at Carthagena and other places, they commonly uſe, in dreſſing their food at Guayaquil, beef ſuet. But whether the climate will not permit the beaſts to acquire a proper degree of fatneſs, whether the ſuet itſelf be not good, or whether they are careleſs in ſeparating it from the tallow; the ſmell and taſte of both are much the ſame, which render their diſhes extremely nauſeous to ſtrangers; and what is little better, they ſeaſon all of them with Guinea pepper, which, though ſmall, is ſo very ſtrong, that the ſmell of it, when whole, ſufficiently declares its ſurpriſing activity; ſo that perſons, not accuſtomed to it, ſuffer either way. If they eat, their mouths ſeem in a flame;

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if they forbear, they muſt endure hunger, till they have overcome their averſion to this ſeaſoning; after which they think the Guinea pepper the fineſt ingredient in the world for giving a reliſh to their food.

The inhabitants of Guayaquil affect greater ſplendour in their formal entertainments; but the method of them is not very agreeable to an European gueſt. The firſt courſe conſiſts of different kinds of ſweetmeats, the ſecond of high-ſeaſoned ragouts; and thus they continue to ſerve up an alternate ſucceſſion of ſweet and high-ſeaſoned diſhes. The common drink on theſe occaſions is grape brandy, there called Aqua ardiente de Caſtilla, cordials and wine: of all which they drink freely during the entertainment, heightening the pleaſure by the variety; but the Europeans generally prefer wine.

The cuſtom of drinking punch has lately increaſed conſiderably in this city; and, when drunk in moderation, is found to agree very well with the conſtitutions of this climate. Accordingly it has obtained greatly among perſons of diſtinction, who generally drink a glaſs of it at eleven, and again in the evening; thus allaying their thirſt, and at the ſame time correcting the water, which, beſides the diſagreeable taſte communicated to it by heat, promotes an exceſſive perſpiration: and this cuſtom is ſo prevailing, that even the ladies punctually obſerve it; and the quantity both of acid and ſpirit being but ſmall, it becomes equally wholeſome and refreſhing.

CHAP. VIII. — *Extent of the Juriſdiction of Guayaquil.*

THE moſt northern part of the juriſdiction of Guayaquil begins at Cape Paſſado, ſo called from its lying 21′ ſouth of the equinoctial, and about half a degree north of the bay of Manta. From this cape it continues all along the coaſt, including the iſle of Puna, to the town of Machala on the coaſt of Tumbez, where it is terminated by the juriſdiction of Piura. From thence it runs away eaſtward, and is bounded by that of Cuenca; and then, turning northwards along the weſtern ſkirts of the Andes, it terminates on thoſe of Bamba and Chimbo. Its length, from north to ſouth, is about ſixty leagues, and its breadth, from eaſt to weſt, forty or forty-five; reckoning from the point of Santa Elena to the parts called Ojibar. Its whole country, like that in the neighbourhood of the city, is one continued plain, and in winter univerſally overflowed. It is divided into ſeven lieutenancies or departments, for each of which the corregidor appoints a lieutenant or deputy, who, however, muſt be confirmed by the audience of Quito. Theſe departments are, Puerto Viejo, Punta de Santa Elena, Puna, Yaguache, Babahoyo, Baba, and Daule.

The lieutenancy de San Gregorio de Puerto Viejo is bounded northward by the government of Atacames, and ſouthward by the lieutenancy of Santa Elena. Its capital of the ſame name, though ſmall, thinly peopled, and poor, enjoys the privileges of a city, and includes the towns of Monte Chriſto, Picoaſa, Charapoto, and Xipijapa. Theſe have their particular prieſts, who are likewiſe the ſpiritual directors of all the ſmaller villages in this diſtrict.

The town of Monte Chriſto ſtood at firſt in the bay of Manta, and was called by that name. It had then a conſiderable commerce by means of veſſels paſſing from Panama to the ports of Peru; but, having been pillaged and deſtroyed by ſome foreign adventurers, who infeſted thoſe ſeas, the inhabitants removed it to the foot of Monte Chriſto, where it now ſtands, and from whence it has its name.

Some tobacco is planted in this juriſdiction, but is not much eſteemed; and the reſt of its products, as wax, cotton, and pita, are barely ſufficient to ſupport its inhabitants,

bitants, though they are far from being numerous; occaſioned by the general poverty which reigns through all its towns and villages. The kinds of timber natural to ſuch hot and moiſt countries grow here in prodigious quantities.

Formerly along the coaſt, and in the bay belonging to this lieutenancy, was a conſiderable pearl fiſhery; but it has been totally diſcontinued for ſome years; occaſioned partly from the dangers the divers were expoſed to, from the mantas and tintoreas already deſcribed; and partly from the poverty of the inhabitants of this country, who, being in general Indians and caſts, want ability to purchaſe Negroes for this occupation. The bay has probably its name from the great number of mantas in thoſe parts, eſpecially as the common employment of the inhabitants is the taking of that fiſh, which they ſalt, and carry into the inland provinces. The Europeans cannot help admiring their dexterity in this kind of fiſhery, which they carry on in the following manner: they throw into the water a log of wood, ſuch as they uſe in making a balza, being about five or ſix yards in length, and near a foot in diameter, and ſufficient to bear the weight aſſigned it, which is a net lying acroſs one end of it, while an Indian ſtands in an erect poſition on the other; and, by help of a canalete or oar, puts off to ſea, to the diſtance of half a league or more, where he ſhoots his net. Another Indian, who follows him on a ſimilar log, takes hold of the rope faſtened to one end of the net; and when the whole is extended, they both move towards the land, where their partners wait to draw the net aſhore. And here one cannot help obſerving with aſtoniſhment the dexterity and agility of the Indians, in maintaining an equilibrium on round logs, where, by the continual agitations of the ſea, they muſt be always changing their poſition, and making different motions with their body; and what ſtill heightens the difficulty is, that he is obliged, at the ſame time, to mind both his oar and the net, in drawing it towards the land. They are indeed excellent ſwimmers; ſo that if they happen (which is very ſeldom) to ſlip off, they are ſoon on the log again, and in their former poſture; at leaſt, they are in no danger of being ſhipwrecked.

I ſhall place Punta de Santa Elena as the ſecond lieutenancy, becauſe it joins to the ſouth part of the former. It extends all along the weſtern coaſt from the iſles of Plata and Salango, to the ſame Punta de Santa Elena; from thence it ſtretches along the north coaſt, formed by the bay of Guayaquil; comprehending in this extent the towns of Punta, Chongon, Morro, Colonche, and Chandui. At Chongon and Morro two prieſts reſide, to whoſe pariſhes the others belong. The lieutenant, inveſted with the civil government, reſides in the town of Punta, two leagues from the port, where there are indeed warehouſes, or rather ſheds, for receiving ſalt and other goods, but no dwelling-houſes.

The port of Punta has ſo many ſalt-works, that it ſupplies the whole province of Quito and juriſdiction of Guayaquil. The ſalt is not the fineſt, but remarkably compact, and anſwers very well the principal intention, that of ſalting fleſh.

On the coaſt belonging to this lieutenancy is found that exquiſite purple, ſo highly eſteemed among the ancients; but the fiſh from which it was taken, having been either unknown or forgotten, many moderns have imagined the ſpecies to be extinct. This colour, however, is found in a ſpecies of ſhell-fiſh growing on rocks waſhed by the ſea. They are ſomething larger than a nut, and are replete with a juice, probably the blood, which, when expreſſed, is the true purple; for if a thread of cotton, or any thing of a ſimilar kind, be dipt in this liquor, it becomes of a moſt vivid colour, which repeated waſhings are ſo far from obliterating, that they rather improve it; nor does it fade by wearing. The juriſdiction of the port of Nicoya, in the province of Guatemala, alſo affords this ſpecies of turbines, the juice of which is alſo uſed in dying cotton threads,

and, in ſeveral parts, for ribands, laces, and other ornaments. Stuffs dyed with this purple are alſo highly valued. This precious juice is extracted by different methods. Some take the fiſh out of its ſhell, and, laying it on the back of their hand, preſs it with a knife from the head to the tail, ſeparating that part of the body into which the compreſſion has forced the juice, and throw away the reſt. In this manner they proceed, till they have provided themſelves with a ſufficient quantity. Then they draw the threads through the liquor, which is the whole proceſs. But the purple tinge does not immediately appear, the juice being at firſt of a milky colour; it then changes to green; and, laſtly, into this celebrated purple. Others purſue a different method in extracting the colour; for they neither kill the fiſh, nor take it entirely out of its ſhell; but ſqueeze it ſo hard as to expreſs a juice, with which they dye the thread, and afterwards replace the fiſh on the rock whence it was taken. Some time after it undergoes a ſecond operation; but without yielding ſo much juice as at firſt; and at the third or fourth very little, by which means the fiſh is exhauſted beyond recovery. In 1744, being in the lieutenancy of Santa Elena, I had the ſatisfaction to ſee this liquor extracted according to the firſt proceſs, and ſome threads dyed with it. This purple is far from being ſo common as ſome authors have imagined; for, though the fiſh increaſes, yet ſo large a quantity is neceſſary to dye a few ounces of thread, that little of it is ſeen; and, indeed, its great price is partly owing to its ſcarcity. Another circumſtance worthy of obſervation, and which increaſes or diminiſhes the value, is the difference of weight and colour of the cotton dyed with it, according to the different hours of the day. I could not find any ſatisfactory account of this property at Punta de Santa Elena, where the inhabitants, being leſs curious, have not carried their ſpeculations ſo far as to be acquainted with this remarkable ſingularity; whereas at Nicoya it is ſo well known, that the dealers in it, both buyers and ſellers, are exactly acquainted with the times of its increaſe or decreaſe, ſo that one of the firſt preliminaries to a contract is, to ſettle the time when it ſhall be weighed. From this alteration of the weight of the purple thread at Nicoya it may be inferred, that the ſame happens at Punta de Santa Elena; the turbines at both places being exactly of the ſame ſpecies, and without the leaſt viſible difference in colour. Another very remarkable particular relating to its tinct, and which I have heard from perſons of undoubted veracity, is, that the colour of a thread of flax is very different from that of a thread of cotton. It would, therefore, be proper, to make repeated experiments, on threads of ſilk, flax, and wool.

Some, by ſaying that the fiſh, from whence this dye is extracted, breeds in a ſhell, by which either the flat or acaracolada or ſpiral may be underſtood; it may not be improper to remark that it is the laſt ſpecies, and, accordingly, the cotton tinged with this juice, is called Caracolillo. This department alſo abounds in fruits, cattle of all kinds, wax, and fiſh; ſo that the inhabitants have very profitable motives for induſtry; accordingly it is very populous, and though it does not abound in towns, the number of inhabitants far exceeds that of the preceding government, and the harbour of Punta is much frequented by veſſels, that is, by ſuch as trade between Panama and the ports of Peru, in order to purchaſe different kinds of proviſions, as calves, kids, fowl, and other kinds, of which there is here a great plenty. Veſſels belonging to the merchants of Guayaquil of two hundred tons, load here with ſalt; a trade which, from the cheapneſs of that commodity, turns to a very good account.

The next lieutenancy ſouthward is Puna, an iſland in the mouth of Guayaquil river. It extends north-eaſt and ſouth-weſt between ſix and ſeven leagues, and is of a quadrilateral figure. According to an ancient tradition, its inhabitants were once between twelve and fourteen thouſand: but, at preſent, it has only one ſmall town, ſituated at

the head of its harbour in the north-eaſt part; and the few inhabitants conſiſt chiefly of caſts, and ſome Spaniards, but very few Indians. To this lieutenancy has been annexed the town of Machala, on the coaſt of Tumbez, together with that of Naranjal, the landing-place of the river of the ſame name, called alſo the Suya; near which is a road leading to the juriſdictions of Cuenca and Alauſi. But neither of theſe towns is in a more flouriſhing condition than that on the iſland. In the latter reſide both the lieutenant and prieſt, to whom the others are ſubject, both in civil and eccleſiaſtical affairs; Puna not only being the principal town, but great ſhips, by reaſon of the depth of its harbour, load there, which cannot be done at Guayaquil, on account of the ſand in its river; while others come there to load with wood.

The juriſdictions of Machala and Manaranjol produce great quantities of cacao, and that of the former is eſteemed the beſt in all Guayaquil. In its neighbourhood, as in the iſland of Puna, are great numbers of mangles, or mangrove trees, whoſe interwoven branches and thick trunks cover all thoſe plains; which, lying low, are frequently overflowed. As this tree is little known in Europe, it muſt not be paſſed over without a ſhort deſcription.

The mangrove is ſo far different from other trees, that it requires a ſoil daily overflowed by the ſea. Accordingly, when the water is ebbed away from the ſpots where the mangroves thrive, they exhale very diſagreeable effluvia from their muddy ſurface. This tree no ſooner appears above the ground, than it divides itſelf into very knotty and diſtorted branches; and from each knot germinates a multitude of others, increaſing ſo as to form, when grown up, an impenetrable thicket. Nor is it poſſible to diſcern the ſhoots belonging to the principal branches; for, beſides this entangled labyrinth, thoſe of the fifth or ſixth production are equal in magnitude to thoſe of the firſt, which is generally of an inch and a half or two inches in diameter; and all ſo flexible, that the only method of ſevering them is by ſome edged tool. Though they extend themſelves nearly horizontally, yet the trunk and principal branches increaſe both in height and thickneſs. Its leaves are very ſmall, in proportion to the branches, not being above an inch and a half or two inches in length, oval, thick, and of a pale green. The uſual height of the principal ſtems of the mangrove is eighteen or twenty yards, ten or twelve inches in diameter, and covered with a thin, rough bark. But its wood is ſo ſolid and heavy, that it ſinks in water, and, when uſed in ſhips or veſſels, is found very durable, being not ſubject either to ſplit or rot.*

The Indians here pay their annual tribute in the wood of the mangrove, which is uſed occaſionally in ſuch works as its nature is beſt adapted to.

The lieutenancy of Yaguache is at the mouth of the river of the ſame name, which falls into that of Guayaquil on the ſouth ſide; and has its riſe from the ſkirts of the Cordillera, ſouth of the river Bamba. Its juriſdiction contains three towns; the principal, that where the cuſtom-houſe is erected, is San Jacinto de Yaguache; the two others are Nouſa and Antonche. To theſe belong two prieſts, one reſiding at Yaguache, and the other at Nouſa. Though theſe towns are but thinly inhabited, the farms and country have great numbers, particularly of the poorer ſort.

The chief production of Yaguache is wood, and a little cacao: but cattle and cotton are the principal objects of their attention.

* The mangrove ſhoots out collateral branches, which bend down, take root, and put out others which do the ſame, ſo that one tree in a few years covers a large ſpace of ground. Thoſe ſtems that are within the reach of high-water mark are generally covered with a ſmall kind of oyſter, called Mangrove-oyſters, which are eaten by the natives. The bark of the tree is uſed to tan leather, in which it ſucceeds very well, but gives the leather a much higher colour than oak bark. A.

Babahoyo, a name ſufficiently known in all theſe countries, it being the ſeat of the grand cuſtom-houſe for every thing going into the Cordillera, or coming from thence, has a very large juriſdiction, in which, beſides the principal town, are thoſe of Ujiba, Caracol, Quilea, and Mangaches; the two laſt border on the Cordillera, and are a conſiderable diſtance from Ujiba, where the prieſt reſides during the winter, removing in the ſummer to Babahoyo, which, beſides its ſettled inhabitants, has always a great number of traders from other parts.

The country of this juriſdiction, being level and low, on the firſt ſwellings of the rivers Caluma, Ujiba, and Caracol, is overflowed to a prodigious diſtance, though at different depths, particularly at Babahoyo, where the waters riſe to the firſt ſtory of the houſes, ſo that during the winter it is entirely forſaken.

The country of this juriſdiction, as well as that of Baba, contiguous to it, abounds in ſuch numbers of cacao plantations, that many are neglected, and their fruit left to the monkies and other animals, which are thus happily provided for by the ſpontaneous fertility of the ground, without any aſſiſtance from agriculture. It alſo produces cotton, rice, Guinea pepper, and a great variety of fruits. It has likewiſe large droves of black cattle, horſes, and mules, which, during the time the country is under water, are kept in the mountains; but, as ſoon as the lands are dry, are driven down to fatten on the gamalotes, a plant of ſuch luxuriance, as to cover entirely the ground; its height exceeds two yards and a half. It alſo grows ſo thick, as to preclude all paſſage, even along the paths made by the traders.

The blade of the gamalote reſembles that of barley, but longer, broader, thicker, and rougher. The green is deep, but lively, and the ſtalk diverſified with knots, from which the leaves, which are ſtrong, and ſomething above two lines in diameter, have their origin. When the gamalote is at its full growth, the height of water during the floods, by riſing above its top, preſſes it down, and rots it, ſo that, when the waters ebb away, the earth ſeems covered with it; but at the firſt impreſſion of the ſun it ſhoots again, and in a few days abounds in the ſame plenty as before. One thing r markable in it is, that, though it proves ſo nouriſhing to the cattle of this diſtrict, it is very noxious to thoſe from the Cordillera, as has been often experienced.

Baba is one of the largeſt lieutenancies of Guayaquil, reaching to the ſkirts of the Cordillera, or the mountains of Anga Marca, belonging to the juriſdiction of Latacunga, or, according to the Indian pronunciation, Llatacunga. Beſides the principal town of the ſame name, it has others annexed to it, ſo far as to be under one prieſt, who, with the corregidor's lieutenant, reſides continually at Baba. Formerly, the river of the ſame name ran cloſe by this town; but Don En Vinces having cut a canal for watering the cacao plantations on his eſtate, the river inclining more to this courſe than its former, it was found impoſſible to ſtop it; ſo that, leaving its original channel, it has ever ſince continued to run in a courſe ſome diſtance from the town. The other two places are San Lorenzo and Palenque, both at a great diſtance from the capital, and near the Cordillera, ſo that their Indian inhabitants are but little civilized.

The cacao tree, which, as I have already obſerved, abounds in this diſtrict, inſtead of being only four or five, according to ſome authors, who poſſibly ſaw it when very young, is generally not leſs than eighteen or twenty feet high. It begins from the ground to divide itſelf into four or five ſtems, according to the vigour of the root, from whence they all proceed. They are generally between four and ſeven inches in diameter; but their firſt growth is in an oblique direction, ſo that the branches are all expanded and ſeparated from one another. The length of the leaf is between four and

ſix inches, and its breadth three or four. It is very ſmooth, ſoft, and terminates in a point, like that of the China orange tree, but with ſome difference in colour, the former being of a dull green, and has nothing of the gloſs obſervable on the latter; nor is the tree ſo full of leaves as that of the orange. From the ſtem, as well as the branches, grow the pods which contain the cacao. The firſt appearance is a white bloſſom, not very large, whoſe piſtil contains the embryo of the pod, which grows to the length of ſix or ſeven inches, and four or five in breadth, reſembling a cucumber in ſhape; and ſtriated in a longitudinal direction, but deeper than the cucumber. The pods are not preciſely of the above dimenſions, nor are they always proportionate to the ſtem or branch, to which they adhere in the form of excreſcences, ſome being much ſmaller; and it is not extraordinary to ſee one of the leaſt ſize on the principal trunk, and one prodigiouſly large near the extremity of a ſlender branch. But it is obſerved that, when two grow in contact, one of them attracts all the nutritive juice, and thrives on the decay of the other.

The colour of the pod while growing is green, nearly reſembling that of the leaf, but when arrived at its full perfection, it gradually changes to a yellow. The ſhell which covers it is thin, ſmooth, and clear. When the fruit is arrived at its full growth, it is gathered; and being cut into ſlices, its pulp appears white and juicy, with ſmall ſeeds regularly arranged, and at that time of no greater conſiſtence than the reſt of the pulp, but whiter, and contained by a very fine delicate membrane, full of liquor, reſembling milk, but tranſparent, and ſomething viſcid; at this time it may be eaten like any other fruit. Its taſte is a ſweetiſh acid; but in this country is thought to be promotive of fevers. The yellowneſs of the pod indicates that the cacao begins to feed on its ſubſtance, to acquire a greater conſiſtence, and that the ſeeds begin to fill; the colour gradually fading till they are fully completed, when the dark-brown colour of the ſhell, into which the yellow has deviated, indicates that it is a proper time to gather it. The thickneſs of the ſhell is now about two lines, and each ſeed found incloſed in one of the compartments formed by the tranſverſe membranes of the pod. After gathering the fruit, it is opened, and the ſeeds taken out and laid on ſkins kept for that purpoſe, or more generally on vijahua leaves, and left in the air to dry. When fully dried, they are put into leather bags, ſent to market, and ſold by the carga or load, which is equal to eighty-one pounds; but the price is far from fixed, being ſometimes ſold for ſix or eight rials per carga, though leſs than the charge of gathering: but the general price is between three and four dollars, and, at the time of the armadas, when the demand is very large, riſes in proportion.

This tree produces its fruit twice a year, and in the ſame plenty and goodneſs. The quantity gathered throughout the whole juriſdiction of Guayaquil amounts at leaſt to 50,000 cargas.

The cacao trees delight ſo exceſſively in water, that the ground where they are planted muſt be reduced to a mire, and, if not carefully ſupplied with water, they die. They muſt alſo be planted in the ſhade, or at leaſt defended from the perpendicular rays of the ſun; accordingly, they are always placed near other larger trees, under the ſhelter of which they grow and flouriſh. No ſoil can be better adapted to the nature of theſe trees than that of Guayaquil, as it favours them in both reſpects; in the former, as conſiſting wholly of ſavannahs or wide plains, overflowed in winter, and in ſummer plentifully watered by canals; and, with regard to the latter, it abounds in other trees, which afford them the requiſite ſhelter.

All the care neceſſary in the culture of this tree conſiſts in clearing the ground from the weeds and ſhrubs abounding in ſo wet a ſoil: and this is ſo neceſſary, that, if

neglected, in a few years theſe vegetables will deſtroy the cacao plantations, by robbing the ſoil of all its nouriſhment.

The laſt lieutenancy to be deſcribed, is that of Daule. The principal town is of the ſame name, and waſhed by the river, to which it owes its appellation. It contains many ſpacious houſes belonging to the inhabitants of Guayaquil. It is alſo the reſidence of a lieutenant and a pariſh prieſt, having under their inſpection the two towns of Santa Lucia and Valſar. Here are a great number of plantations of tobacco and ſugar-canes, cacao, and cotton; together with large orchards of fruit-trees, and extenſive corn-fields.

The river Daule, which, like that of Baba, diſcharges itſelf into Guayaquil river, is very large, and on both a great trade is carried on with that city. By the former, it receives the great plenty and variety of ſummer fruits, and a conſiderable part of the plantanes, which conſtitute the bread uſed there during the whole year. Though great quantities of tobacco grow in other parts of the juriſdiction of Guayaquil, yet none equals that of Daule.

The buſineſs of grazing is followed in all theſe lieutenancies; but more or leſs, in proportion to their extent, the nature of the ſoil, and the conveniency of driving the cattle to the mountains, beyond the reach of the inundations.

CHAP. IX. — *Deſcription of the River of Guayaquil, and of the Veſſels trading on it.*

THE river of Guayaquil being the channel of the commerce of that place, it will be proper to give ſome account of it, in order to aſſiſt the reader in forming an idea of the trade carried on in that city.

The diſtance of the navigable part of this river, from the city to the cuſtom-houſe at Babahoyo, the place where the goods are landed, is, by thoſe who have long frequented it, commonly divided into reaches, of which there are twenty, its courſe being wholly ſerpentine; but to Caracol, the landing-place in winter, there are twenty-four reaches, the longeſt of which are the three neareſt the city; and theſe may be about two leagues and a half in length, but the others not above one. Whence it may be inferred, on an average, that the diſtance, meaſured on the ſurface of the river, between Guayaquil and the cuſtom-houſe of Babahoyo, is twenty-four leagues and a half, and to Caracol twenty-eight and a half. The time requiſite to perform this paſſage is very different, according to the ſeaſon, and nature of the veſſel. During the winter, a chata generally takes up eight days in going from Guayaquil to Caracol, being againſt the current of the river; whereas two days are ſufficient to perform the paſſage downwards. In ſummer a light canoe goes up in three tides, and returns in little more than two; the ſame may be ſaid of other veſſels, the paſſage downwards being always performed in much leſs time than the other, on account of the natural current of the river, in the reaches near the cuſtom-houſe, where the ſtrongeſt flood only ſtops the water from running downwards.

The diſtance from Guayaquil to Iſla Verde, ſituated at the mouth of the river in Puna bay, is by pilots computed at about ſix leagues, and divided, like the other part, into reaches; and from Iſla Verde to Puna three leagues: ſo that the whole diſtance from Caracol, the moſt inland part up the river, to that of Puna, is thirty-ſeven leagues and a half. Between Iſla Verde and Puna it widens ſo prodigiouſly, that the horizon towards the north and ſouth is bounded by the ſky, except in ſome few parts northwards, where the plantations of mangroves are perceived.

The

The mouth of the river at the Iſla Verde is about a league in breadth, and even ſomething broader at Guayaquil, above which it contracts itſelf as it advances nearer the mountains, and forms other creeks, the mouth of one of which, called Eſtero de Santay, faces the city; another, termed Lagartos, is near the cuſtom-houſe at Babahoyo. Theſe are the largeſt, and at the ſame time extend to ſuch a diſtance from the principal river, as to form very conſiderable iſlands.

The tides, as we have before obſerved, in ſummer-time reach up to the cuſtom-houſe, checking the velocity of the waters, and conſequently cauſing them to ſwell; but, in winter, the current being ſtronger and more rapid, this increaſe of the water is viſible only in the reaches near Guayaquil; and in three or four different times of the year the great velocity of the current renders the tides imperceptible: the firſt of this ſeaſon happens about Chriſtmas.

The principal cauſe of the ſwellings of this river ariſes from the torrents ruſhing down from the Cordillera into it. For though rain is frequent here, great part of the water is received by its lakes, or ſtagnates on the plains: ſo that the increaſe of the river is entirely owing to the torrents from the mountains.

One particular inconvenience of theſe floods is, their ſhifting the banks of ſand lying between the city and Iſla Verde; ſo that no ſhips of any conſiderable burden can go up with ſafety, without continually ſounding with the lead, unleſs care has been taken to mark the banks ſince their laſt change.

The borders of this river, like thoſe of Yaguache, Baba, and Daule, as well as thoſe of the creeks and canals, are decorated with country-ſeats, and cottages of poor people of all caſts, having here both the convenience of fiſhing and agriculture; and the intermediate ſpaces filled with ſuch a variety of thickets, that art would find it difficult to imitate the delightful landſcape here exhibited by nature.

The principal and moſt uncommon materials uſed in buildings on theſe rivers, are canes, whoſe dimenſions and other particulars ſhall be taken notice of in their place. Theſe alſo form the inward parts, as walls, floors, and rails of the ſtairs; the larger houſes differ only in ſome of the principal pieces, which are of wood. Their method of building is, to fix in earth, eight, ten, or twelve pieces of wood, more or leſs, according to the dimenſions of the houſe, forked at the top, and of a proper length, all the apartments being on the firſt ſtory, without any ground floor. Beams are then laid acroſs on theſe forks, at the diſtance of four or five yards from the ground. On theſe beams canes are laid in ſuch a manner as to form a kind of rafters, and over theſe boards of the ſame canes a foot and a half in breadth, which form as firm and handſome a flooring as if of wood. The partitions of the ſeveral apartments are of the ſame materials, but the outer walls are generally latticed, for the free admiſſion of the air. The principal beams of the roof of large houſes are of timber, the rafters of cane, with ſmaller, in a tranſverſe direction, and over theſe vijahua leaves.* Thus a houſe is built at very little expenſe, though containing all the neceſſary conveniences. With regard to the poorer ſort, every one's own labour ſuffices to procure him a habitation. He goes up a creek in a ſmall canoe, and from the firſt wood cuts down as many canes, vijahuas, and bejucos,† as he wants, and, bringing the whole to the ſhore, he makes a balza or float, on which he loads his other materials, and falls down the river to the place where he intends to erect his cottage. After which, he begins his work, faſtening with bejucos thoſe parts which are uſually nailed; and,

* This leaf is three or four feet long, and about one broad. A.

† A long pliant twig, uſed as a cord by the natives; deſcribed Book V. Ch. I. A.

in a few days, finiſhes it in the completeſt manner. Some of theſe cottages are almoſt equal in dimenſions to thoſe of timber.

The lower part, both of theſe houſes, as well as thoſe in the greater part of the juriſdiction of Guayaquil (which are of the ſame form), are expoſed to all winds, being entirely open, without having any wall, or fence, except the poſts or ſtancheons by which the building is ſupported. For whatever coſt was expended on the ground floor, it would be wholly uſeleſs in the winter, when all the country is turned to mud. Such houſes, however, as ſtand beyond the reach of inundations, have ground floors, walled and finiſhed like the other apartments, and ſerve as warehouſes for goods; but thoſe within the inundations are built, as it were, in the air, the water having a free paſſage under them. All the inhabitants have their canoes for paſſing from one houſe to another, and are ſo dexterous in the management of theſe ſkiffs, that a little girl ventures alone in a boat ſo ſmall and ſlight, that any one leſs ſkilful would overſet in ſtepping into it, and without fear croſſes rapid currents, which an expert ſailor, not accuſtomed to them, would find very difficult.

The continual rains in winter, and the ſlightneſs of the materials with which theſe houſes are built, render it neceſſary to repair them during the ſummer; but thoſe of the poorer ſort, which are low, muſt be every year rebuilt, eſpecially thoſe parts which conſiſt of cane, bejuco, and vijahua, while the principal ſtancheons, which form the foundation, ſtill continue ſerviceable, and able to receive the new materials.

From the houſes I proceed to give an account of the veſſels, which (omitting the chatas and canoes as common) are called Balzas, i. e. rafts. The name ſufficiently explains their conſtruction, but not the method of managing them, which theſe Indians, ſtrangers to the arts and ſciences, have learned from neceſſity.

Theſe Balzas, called by the Indians Jungadas,* are compoſed of five, ſeven, or nine beams of a ſort of wood, which, though known here only by the name of Balza, the Indians of Darien called Puero; and, in all appearance, is the ferula of the Latins, mentioned by Columella; Pliny takes notice of two ſpecies of it, the leſſer by the Greeks called Nartechia, and the larger Narthea, which grows to a great height. Nebrija calls it in Spaniſh Canna Beja or Canna Heja. Don George Juan, who ſaw it growing in Malta, found no other difference betwixt it and the Balza or Puero, only the Canna Beja, called ferula by the Malteſe, is much ſmaller. The Balza is a whitiſh ſoft wood, and ſo very light, that a boy can eaſily carry a log of three or four yards in length and a foot in diameter. Yet, of this wood are formed the Janjades or Balzas, already mentioned. Over part of it is a ſtrong tilt formed of reeds. Inſtead of a maſt, the ſail is hoiſted on two poles or ſheers of mangrove wood, and thoſe which carry a foreſail have two other poles erected in the ſame manner.

Balzas are not only uſed on rivers, but ſmall voyages are made at ſea in them, and ſometimes they go as far as Paita. Their dimenſions being different, they are alſo applied to different uſes; ſome of them being fiſhing Balzas; ſome carry all kinds of goods from the cuſtom-houſe to Guayaquil, and from thence to Puna, the Salto de Tumbez, and Paita; and others, of a more curious and elegant conſtruction, ſerve for removing families to their eſtates and country-houſes, having the ſame convenience as on ſhore, not being the leaſt agitated on the river; and that they have ſufficient room for accommodations, may be inferred from the length of the beams, which are twelve or thirteen toiſes and about two feet or more in diameter: ſo that the nine

* They are the ſame that are called Catamorans in the Eaſt Indies. A.

beams

beams of which they conſiſt, form a breadth of between twenty and twenty-four Paris feet; and proportional in thoſe of ſeven, or any other number of beams.

Theſe beams are faſtened or laſhed together by bejucos, and ſo ſecurely, that with the croſs-pieces at each end, which are alſo laſhed with all poſſible ſtrength, they reſiſt the rapidity of the currents in their voyages to the coaſt of Tumbez and Paita. The Indians are ſo ſkilful in ſecuring them, that they never looſen, notwithſtanding the continual agitation; though by their neglect in examining the condition of the bejucos, whether they are not rotten or worn, ſo as to require others, there are ſome melancholy inſtances of Balzas, which, in bad weather, have ſeparated, and, by that means, the cargo loſt, and the paſſengers drowned. With regard to the Indians, they never fail of getting on one of the beams, which is ſufficient for them to make their way to the next port. One or two unfortunate accidents of this kind happened even while we were in the juriſdiction of Quito, purely from the ſavage careleſſneſs of the Indians.

The thickeſt beam of thoſe which compoſe the Balza, is placed ſo as to project bejond the other in its after-part; and to this are laſhed the firſt beams on each ſide, and thus, ſucceſſively, till the whole are ſecured; that in the middle being the principal piece, and thence the number of beams is always odd. The larger ſort of Balzas generally carry between four and five hundred quintals, without being damaged by the proximity of the water; for the waves of the ſea never run over the Balza; neither does the water ſplaſh up between the beams, the Balza always following the motion of the water.

Hitherto we have only mentioned the conſtruction and the uſes they are applied to; but the greateſt ſingularity of this floating vehicle is, that it ſails, tacks, and works as well in contrary winds, as ſhips with a keel, and makes very little lee-way. This advantage it derives from another method of ſteering than by a rudder; namely, by ſome boards, three or four yards in length, and half a yard in breadth, called Guaras, which are placed vertically, both in the head and ſtern between the main beams, and by thruſting ſome of theſe deep in the water, and raiſing others, they bear away, luff up, tack, lie to, and perform all the other motions of a regular ſhip: an invention hitherto unknown to the moſt intelligent nations of Europe, and of which even the Indians know only the mechaniſm, their uncultivated minds having never examined into the rationale of it. Had this method of ſteering been ſooner known in Europe, it would have alleviated the diſtreſs of many a ſhipwreck, by ſaving numbers of lives; as in 1730, the Genoveſa, one of His Majeſty's frigates, being loſt on the Vibora, the ſhip's company made a raft; but committing themſelves to the waves, without any means of directing their courſe, they only added ſome melancholy minutes to the term of their exiſtence. Such affecting inſtances induced me to explain the reaſon and foundation of this method of ſteering, in order to render it of uſe in ſuch calamitous junctures; and, that I may perform it with the greater accuracy, I ſhall make uſe of a ſhort memoir, drawn up by Don George Juan.

The direction, ſays he, in which a ſhip moves before the wind, is perpendicular to ha[illegible] ſail, as Meſſ. Renau, in the *Theorie de Manœuvres*, chap. ii. art. 1. *Bernoulli*, many art. 4. *Pitot*, ſect. ii. art. 13. have demonſtrated. And re-action being contrary ſhore, ual to the action, the force with which the water oppoſes the motion of the down will be applied in a perpendicular direction to the ſail, and continued from lee- he begins windward, impelling with more force a greater body than a ſmaller, in pro- [illegible]e ſuperficies, and the ſquares of the ſines of the angle of incidence, ſup-

* Th[illegible] their velocities equal. Whence it follows, that a Guara being ſhoved down in

† A[illegible] the

the fore-part of the veſſel, muſt make her luff up; and by taking it out, ſhe will bear away or fall off. Likewiſe on a guara's being ſhoved down at the ſtern, ſhe will bear away; and by taking it out of the water, the balza will luff, or keep nearer to the wind. Such is the method uſed by the Indians in ſteering the balzas; and ſometimes they uſe five or ſix guaras, to prevent the balza from making lee-way; it being evident, that the more they are under water, the greater reſiſtance the ſide of the veſſel meets with; the guaras performing the office of lee-boards, uſed in ſmall veſſels. The method of ſteering by theſe guaras is ſo eaſy and ſimple, that when once the balza is put in her proper courſe, one only is made uſe of, raiſing or lowering it as accidents require; and thus the balza is always kept in her intended direction.

We have before obſerved, that this river and its creeks abound in fiſh, which for ſome time in the year afford employment for the Indians and Mulattos inhabiting its banks, and for which they prepare towards the end of ſummer, having then ſown and reaped the produce of their little farms. All their preparatives conſiſt in examining their balzas, giving them the neceſſary repairs, and putting up a freſh tilt of vijahua leaves. This being finiſhed, they take on board the neceſſary quantity of ſalt, harpoons, and darts. With regard to their proviſion, it conſiſts only of maize, plantanes, and hung-beef. Every thing being ready, they put on board the balzas, their canoes, their families, and the little furniture they are maſters of. With regard to the cattle and horſes, of which every one has a few, they are driven up to winter in the mountains.

The Indians now ſteer away to the mouth of ſome creek, where they expect to take a large quantity of fiſh, and ſtay there during the whole time of the fiſhery, unleſs they are diſappointed in their expectations; in which caſe they ſteer away to another, till they have taken a ſufficient quantity, when they return to their former habitations; but not without taking with them vijahua leaves, bejucos, and canes, for making the neceſſary repairs. When the communication is opened with the provinces of the Cordilleras, and the cattle begin to return into the plains, they carry their fiſh to the cuſtom-houſe of Babahoyo, where they ſell it; and with the produce, purchaſe baize, tucuyo, and other ſtuffs, for clothing themſelves and families.

Their method of fiſhing is thus: Having moored their balza near the mouth of a creek, they take their canoes, with ſome harpoons and ſpears, and on ſight of a fiſh make towards it, till they arrive at a proper diſtance, when they throw their ſpear at it with ſuch dexterity, that they ſeldom miſs; and if the place abounds in fiſh, they load their canoes in three or four hours, when they return to their balzas to ſalt and cure them. Sometimes, eſpecially in places where the creeks form a kind of lake, they make uſe of a certain herb called Barbaſco, which they chew, mix with ſome bait, and ſcatter about on the water. The juice of this herb is ſo ſtrong, that the fiſh on eating a very little of it become inebriated, ſo as to float on the ſurface of the water, when the Indians have no other trouble than to take them up. This juice is actually fatal to the ſmaller fiſh, and the larger do not recover for ſome time; and even theſe, if they have eaten a conſiderable quantity, periſh. It is natural to think, that fiſh caught in this manner muſt be prejudicial to health: but experience proves the contrary, and accordingly the moſt timorous make no difficulty of eating them. Their next method of fiſhing is with nets; when they form themſelves into companies, for the better management of them.

The largeſt ſort of fiſh caught here is called Bagre, ſome of which are a yard and a half long; but flabby, and of an ill taſte, ſo that they are never eaten freſh. The Robalo, a ſort of large trout, is the moſt palatable; but being only taken in the

creeks a great way above Guayaquil, the diſtance will not admit their being brought to that city.

The increaſe of fiſh in this river is greatly hindered by the prodigious numbers of alligators, an amphibious creature living both in the rivers, and the adjacent plains, though it is not often known to go far from the banks of the river. When tired with fiſhing, they leave the water to baſk themſelves in the ſun, and then appear more like logs of half rotten wood thrown aſhore by the current, than living creatures; but upon perceiving any veſſel near them, they immediately throw themſelves into the water. Some are of ſo monſtrous a ſize as to exceed five yards in length. During the time they lie baſking on the ſhore, they keep their huge mouths wide open, till filled with moſchitos, flies, and other inſects, when they ſuddenly ſhut their jaws and ſwallow their prey. Whatever may have been written with regard to the fierceneſs and rapacity of this animal, I and all our company know, from experience, they avoid a man, and on the approach of any one, immediately plunge into the water. Their whole body is covered with ſcales impenetrable to a muſket-ball, unleſs it happens to hit them in the belly near the fore legs; the only part vulnerable.

The alligator is an oviparous creature. The female makes a large hole in the ſand near the brink of a river, and there depoſits her eggs; which are as white as thoſe of a hen, but much more ſolid. She generally lays about a hundred, continuing in the ſame place till they are all depoſited, which is about a day or two. She then covers them with the ſand; and the better to conceal them, rolls herſelf, not only over her precious depoſitum, but to a conſiderable diſtance. After this precaution, ſhe returns to the water till natural inſtinct informs her that it is time to deliver her young from their confinement; when ſhe comes to the ſpot, followed by the male, and tearing up the ſand, begins breaking the eggs, but ſo carefully, that ſcarce a ſingle one is injured; and a whole ſwarm of little alligators are ſeen crawling about. The female then takes them on her neck and back, in order to remove them into the water; but the watchful gallinazos make uſe of this opportunity to deprive her of ſome; and even the male alligator, which indeed comes for no other end, devours what he can, till the female has reached the water with the few remaining; for all thoſe which either fall from her back, or do not ſwim, ſhe herſelf eats; ſo that of ſuch a formidable brood, happily not more than four or five eſcape.

The gallinazos, mentioned in our account of Carthagena, are the moſt inveterate enemies of the alligators, or rather extremely fond of their eggs, in finding which they make uſe of uncommon addreſs. Theſe birds often make it their whole buſineſs to watch the females during the ſummer, the ſeaſon when they lay their eggs, the ſands on the ſides of the river not being then covered with water. The gallinazo perches on ſome tree, where it conceals itſelf among the branches, and there ſilently watches the female alligator, till ſhe has laid her eggs and retires, pleaſed that ſhe has concealed them beyond diſcovery. But ſhe is no ſooner under the water, than the gallinazo darts down on the repoſitory, and with its beak, claws, and wings, tears up the ſand, and devours the eggs, leaving only the ſhells. This banquet would indeed richly reward its long patience, did not a multitude of gallinazos from all parts, join the fortunate diſcoverer and ſhare in the ſpoil. I have often been entertained with this ſtratagem of the gallinazos, in paſſing from Guayaquil to the cuſtom-houſe of Babahoyo; and my curioſity once led me to take ſome of the eggs, which thoſe who frequent this river, particularly the Mulattos, make no difficulty of eating, when freſh. Here we muſt remark the methods uſed by Providence in diminiſhing the number of theſe deſtructive creatures, not only by the gallinazos, but even by the males themſelves.

ſelves. Indeed, neither the river nor the neighbouring fields would otherwiſe be ſufficient to contain them; for, notwithſtanding the ravages of theſe two inſatiable enemies, their numbers can hardly be imagined.

Theſe alligators are the great deſtroyers of the fiſh in this river, it being their moſt ſafe and general food; nor are they wanting in addreſs to ſatisfy their deſires; eight or ten, as it were by compact, draw up at the mouth of a river or creek, whilſt others go a conſiderable diſtance up the river, and chaſe the fiſh downwards, by which none of any bigneſs eſcape them. The alligators being unable to eat under water, on ſeizing a fiſh, raiſe their heads above the ſurface, and by degrees draw the fiſh from their jaws, and chew it for deglutition. After ſatisfying their appetite, they retire to reſt on the banks of the river.

When they cannot find fiſh to appeaſe their hunger, they betake themſelves to the meadows bordering on the banks, and devour calves and colts; and, in order to be more ſecure, take the opportunity of the night, that they may ſurpriſe them in their ſleep; and it is obſerved, that thoſe alligators which have once taſted fleſh, become ſo fond of it, as never to take up with fiſh but in caſes of neceſſity. There are even too many melancholy inſtances of their devouring the human ſpecies, eſpecially children, who from the inattention natural to their age, have been without doors after it is dark; and though at no great diſtance, theſe voracious animals have dared to attack them, and having once ſeized them, to make ſure of their prey againſt that aſſiſtance which the cries of the victim never fail to bring, haſten into the water, where they immediately drown it, and then return to the ſurface, and devour it at leiſure.

Their voracity has alſo been felt by the boatmen, whom, by inconſiderately ſleeping with one of their arms or legs hanging over the ſide of the boat, theſe animals have ſeized, and drawn the whole body into the water. Alligators who have once feaſted on human fleſh, are known to be the moſt dangerous, and become, as it were, inflamed with an inſatiable deſire of repeating the ſame delicious repaſt. The inhabitants of thoſe places where they abound, are very induſtrious in catching and deſtroying them. Their uſual method is by a caſonate, or piece of hard wood ſharpened at both ends, and baited with the lungs of ſome animal. This caſonate they faſten to a thong, the end of which is ſecured on the ſhore. The alligator on ſeeing the lungs floating on the water, ſnaps at the bait, and thus both points of the wood enter his jaws, in ſuch a manner that he can neither ſhut nor open his mouth. He is then dragged aſhore, where he violently endeavours to reſcue himſelf, while the Indians bait him like a bull, knowing that the greateſt damage he can do, is to throw down ſuch as for want of care or agility, do not keep out of his reach.

The form of this animal ſo nearly reſembles that of the lagarto or lizard, that here they are commonly called by that name; but there is ſome difference in the ſhape of the head, which in this creature is long, and towards the extremity ſlender, gradually forming a ſnout like that of a hog, and when in the river, is generally above the ſurface of the water; a ſufficient demonſtration, that the reſpiration of a groſſer air is neceſſary to it. The mandibles of this creature have each a row of very ſtrong and pointed teeth, to which ſome writers have attributed particular virtues; but all I can ſay to this is, that they are ſuch as I and my companions, notwithſtanding all our enquiries to attain a complete knowledge of every particular, could never hear any ſatisfactory account of.

CHAP. X.—*Of the Commerce carried on by means of the City and River of Guayaquil, betwixt the Provinces of Peru and Terra Firma, and the Coaſt of New Spain.*

THE commerce of Guayaquil may be divided into two parts: one reciprocal, being that of the products and manufactures of its juriſdiction; the other tranſitory, its port being the place where the goods from the provinces of Peru, Terra Firma, and Gautemala, conſigned to the mountains, are landed; and on the other hand, thoſe from the mountains, deſigned for the abovementioned provinces, are brought hither and ſhipped for their reſpective ports. And as theſe two branches are very different, I ſhall firſt treat particularly of its reciprocal commerce.

The cacao, one of its principal products, is chiefly exported to Panama, the ports of Sonſonate, el Realejo, and other ports of New Spain; and alſo to thoſe of Peru, though the quantity ſent to the latter is but ſmall. It is ſomething ſingular, that in this city and juriſdiction, where cocao grows in ſuch plenty, little or no uſe ſhould be made of it.

Timber, which may be eſteemed the ſecond article of its commerce, is chiefly ſent to Callao, though a little is ſold to the places between Guayaquil and that port. All the expenſe of it here is the charge of felling, carrying it to the next creek or river, and floating it down to Guayaquil; where, or at Puna, it is ſhipped for the ports it is conſigned to.

Though both theſe branches of trade are very advantageous to Guayaquil, as may be eaſily imagined, from the prodigious quantities exported; yet the trade of ſalt is not inferior to either, though the principal markets to which this is ſent, are only the inland towns in the province of Quito. To theſe may be added cotton, rice, and fiſh, both ſalted and dried; the two firſt of which deſerve to be mentioned, as they are exported both to the maritime and inland provinces.

The fourth and laſt article of the commerce of this juriſdiction, is the trade in horned cattle, mules, and colts, of which great numbers are bred in the extenſive ſavannahs of this province. Theſe turn to good account in the provinces of the mountains, where there is not a ſufficiency to anſwer the neceſſary demands.

Beſides theſe four capital articles, there are others, though ſingly of little conſequence, yet jointly are equal to any one of the former, as tobacco, wax, Guinea pepper, drugs, and lana de ceibo, by which great numbers of the lower claſs of people acquire a comfortable ſubſiſtence.

The lana de ceibo, or ceibo wool, is the product of a very high and tufted tree of that name. The trunk is ſtraight, and covered with a ſmooth bark; the leaf round and of a middling ſize. At the proper ſeaſon the tree makes a very beautiful appearance, being covered with white bloſſoms: and in each of theſe is formed a pod, which encreaſes to about an inch and a half or two inches in length, and one in thickneſs. In this pod the lana or wool is contained. When thoroughly ripe and dry, the pod opens, and the filamentous matter or wool gradually ſpreads itſelf into a tuft reſembling cotton, but of a reddiſh caſt. This wool is much more ſoft and delicate to the touch than cotton itſelf, and the filaments ſo very tender and fine, that the natives here think it cannot be ſpun; but I am perſuaded that this is entirely owing to their ignorance: and if a method be ever diſcovered of ſpinning it, its fineneſs will entitle it rather to be called ceibo ſilk than wool. The only uſe they have hitherto applied it to, is to fill matraſſes; and in this particular, it muſt be allowed to have no equal, both with

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regard to its natural ſoftneſs, and its riſing ſo, when laid in the ſun, as even to ſtretch the covering of the mattraſs; nor does it ſink on being brought into the ſhade, unleſs accompanied with dampneſs, which immediately compreſſes it. This wool is here thought to be of an extreme cold quality, which is abundantly ſufficient to hinder it from being generally uſed, though great numbers of perſons of rank, and tenderly brought up, have never ſlept on any thing elſe, but without any injury to their health.

The goods imported into this juriſdiction from Peru, in return for the above-mentioned commodities, are wine, brandy, oil, and dried fruits. From Quito it receives bays, tucuyos, flour, papas, bacon, hams, cheeſe, and other goods of that kind. From Panama, European goods purchaſed at the fairs. The chief commodities it receives from New Spain are iron, found in that country, but much inferior to that of Europe, being brittle and vitreous. It, however, ſerves for ſuch uſes where malleability is of no great importance, but is rarely uſed in building ſhips; alſo, naphtha, and tar for the uſe of ſhipping. From the ſame coaſt, as well as from Peru, they have alſo cordage; though the laſt article, together with European iron, the owners of ſhips import on their own account; and therefore make no part of the commerce.

The tranſitory commerce is in quantity much more conſiderable than that of the preceding, as it conſiſts of the reciprocal exchange between the large kingdoms of Quito and Lima, of their reſpective commodities both natural and factitious. Lima ſends the products of its vineyards and olive yards; and Quito furniſhes cloth, bays, tucuyos, ſerges, hats, ſtockings, and other woollen goods; but indigo being neceſſary for increaſing the beauty of the colours, and none of it growing in the province of Quito, the merchants of Guayaquil import it from New Spain, and ſend it to the Quito manufacturers.

Summer is the proper ſeaſon for carrying on theſe branches of commerce; becauſe then the manufactures of the mountains can be brought down to Guayaquil, and the goods ſent from other parts carried up to the mountainous parts. But the river of Guayaquil is never without veſſels loading with goods of that juriſdiction, the ſea here being always open. The profits reſulting from this large and conſtant commerce could alone have preſerved it from a total deſertion, after being ſo frequently pillaged by pirates, and waſted by fire. And it is owing to the advantages reſulting from this commerce, that we now behold it large, flouriſhing, and magnificent, as if it had enjoyed an uninterrupted proſperity from its very foundation.

BOOK V.

JOURNEY FROM GUAYAQUIL TO THE CITY OF QUITO.

CHAP. I. — *Paſſage from Guayaquil to the Town of Caracol, and from thence to Quito.*

ON receiving advice that the mules, provided by the corregidor of Guaranda, were on the road to Caracol, we immediately embarked at Guayaquil, on the 3d of May 1736, on board a large chata: but the uſual impediment of the current, and ſeveral unfortunate accidents, rendered the paſſage ſo very long, that we did not land

at Caracol before the 11th. The tortures we received on the river from the moſchitos were beyond imagination. We had provided ourſelves with guetres, and moſchito cloths; but to very little purpoſe. The whole day we were in continual motion to keep them off; but at night our torments were exceſſive. Our gloves were indeed ſome defence to our hands, but our faces were entirely expoſed, nor were our clothes a ſufficient defence for the reſt of our bodies; for their ſtings, penetrating through the cloth, cauſed a very painful and fiery itching. The moſt diſmal night we ſpent in this paſſage was when we came to an anchor near a large and handſome houſe, but uninhabited; for we had no ſooner ſeated ourſelves in it, than we were attacked on all ſides with innumerable ſwarms of moſchitos; ſo that we were ſo far from having any reſt there, that it was impoſſible for a perſon, ſuſceptible of feeling, to be one moment quiet. Thoſe who had covered themſelves with their moſchito cloths, after taking the greateſt care that none of theſe malignant inſects were contained in them, found themſelves in a moment ſo attacked on all ſides, that they were obliged ſoon to return to the place they had quitted. Thoſe who were in the houſe, hoping that they ſhould find ſome relief in the open fields, ventured out, though in danger of ſuffering in a more terrible manner from the ſerpents; but were ſoon convinced of their miſtake; it being impoſſible to determine which was the moſt ſupportable place, within the moſchito cloth, without it, or in the open fields. In ſhort, no expedient was of any uſe againſt their numbers. The ſmoke of the trees we burnt, to diſperſe theſe infernal inſects, beſides almoſt choking us, ſeemed rather to augment than diminiſh their multitudes. At day-break, we could not without concern look upon each other. Our faces were ſwelled, and our hands covered with painful tumours, which ſufficiently indicated the condition of the other parts of our bodies expoſed to the attacks of thoſe inſects. The following night we took up our quarters in a houſe inhabited, but not free from moſchitos; though in much leſs numbers than before. On informing our hoſt of the deplorable manner in which we had ſpent the preceding night, he gravely told us, that the houſe we ſo greatly complained of had been forſaken on account of its being the purgatory of a ſoul. To which, one of our company wittily anſwered, that it was much more natural to think that it was forſaken on account of its being a purgatory for the body.

The mules being arrived at Caracol, we ſet out on the 14th of May, and, after travelling four leagues, through ſavannahs, woods of plantain, and cacao-trees, we arrived at the river Ojibar; and continued our journey, during the whole day, along its banks, fording it no leſs than nine times, though with no ſmall danger, from its rapidity, breadth, depth, and rocky bottom; and, about three or four in the afternoon, we halted at a place called Puerto de Muſchitos.

All the road from Caracol to the Ojibar is ſo deep and boggy that the beaſts at every ſtep ſunk almoſt up to their bellies; but along the banks of that river we found it much more firm and commodious. The name of the place where we were to take up our lodging that night ſufficiently indicates its nature. The houſe had been for ſome time forſaken, like that already mentioned on Guayaquil river, and become a neſt of moſchitos of all kinds; ſo that it was impoſſible to determine which was the worſt. Some, to avoid the tortures of theſe inſects, ſtripped themſelves, and went into the river, keeping only their heads above water; but the face being the only part expoſed, was immediately covered with them; ſo that thoſe who had recourſe to this expedient, were ſoon forced to deliver up their whole bodies to theſe tormenting creatures.

On the 15th we continued our journey through a very thick foreſt, the end of which brought us once more to the banks of the ſame river, which we again forded four times,

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and rather with more danger than at firſt. About five, we halted on its banks, at a place called Caluma, or the Indian poſt. Here was no houſe for lodging in, nor had we ſeen one during the whole day's journey; but this inconvenience was in ſome meaſure removed by the ſurpriſing dexterity of our Indians, who, running into the woods, ſoon returned with branches of trees and vijahua leaves, with which, in leſs than an hour, they erected ſeveral huts large enough to contain our whole company; and ſo well covered, that the rain, which came on very violently, did not penetrate them. *

The thermometer at Caluma, on the 16th, at ſix in the morning, was at one thouſand and ſixteen; and we were ourſelves ſenſible that the air began to grow cool. At half an hour after eight in the morning we began our journey, and at noon paſſed by a place called Mamarumi, or mother of ſtone, where there is an inconceivably beautiful aſcade. The rock from which the water precipitates itſelf is nearly perpendicular, and fifty toiſes in height, and on both ſides bordered with lofty and ſpreading trees. The clearneſs of the water dazzles the ſight, which is, however, charmed with its luſtre as it falls from the precipice; after which it continues its courſe in a bed along a ſmall deſcent, and is croſſed by the road. Theſe cataracts are by the Indians called Paccha, and by the Spaniards of the country Chorrera. From hence we continued our journey; and after croſſing the river twice on bridges, but with equal danger as in fording it, we arrived at two in the evening at a place called Tarigagua, where we reſted in a large ſtructure of timber, covered with vijahua leaves, built for our reception. Indeed we were no leſs fatigued with this day's journey than with any of the preceding; ſome parts of it being over dreadful precipices, and the road in others ſo narrow, as hardly to afford paſſage for the mules, that it was impoſſible to avoid frequently ſtriking againſt the trees and rocks; few of us therefore reached Tarigagua without ſeveral bruiſes.

It muſt not be thought ſtrange that I ſhould ſay the bridges are equally dangerous with the fords; for theſe ſtructures, all of wood, and very long, ſhake in paſſing them; beſides, their breadth is not above three feet, and without any rail; ſo that one falſe ſtep precipitates the mule into the torrent, where it is inevitably loſt; accidents, according to the report of our guides not uncommon. Theſe bridges, by the rotting of the wood under water, are annually repaired towards winter, the only ſeaſon when they are uſed; the rivers during the ſummer being fordable.

When a perſon of diſtinction, as a preſident, a biſhop, &c. is on a journey from Cara- or Babahoyo, the corregidor of Guaranda diſpatches Indians for building cottages at the uſual reſting places, like that we found at Tarigagua; and theſe being left ſtanding, ſerve afterwards for other paſſengers, till the rains deſtroy them. When theſe are thrown down, travellers muſt content themſelves with the huts which their Indian guides build with wonderful diſpatch.

At Tarigagua, on the 17th, at ſix in the morning, the thermometer ſtood at 1014½. And having been for ſome time accuſtomed to hot climates, we now ſenſibly felt the cold. It is remarkable, that we here often ſee inſtances of the effects of two oppoſite temperatures, in two perſons happening to meet, one of them coming from Guayaquil, and the other from the mountains: the latter finding the heat ſo great that he is ſcarce able to bear any clothes, while the former wraps himſelf up in all the garments he can procure. The one is ſo delighted with the warmth of the water of the river, that he bathes in it; the other thinks it ſo cold, that he avoids being ſpattered by it. Nor is the

* The natives when they travel, erect new huts every night in this manner, except they have the conveniency of tying their hammock up in trees, by which means they ſave the trouble of a watch and fire all night to keep off the wild beaſts.

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caſe very different even in the ſame perſon, who, after a journey to the mountains, is returning to Guayaquil, or *vice verſa*, provided the journey and return be made at the ſame ſeaſon of the year. This ſenſible difference proceeds only from the change naturally felt at leaving a climate to which one has been accuſtomed, and coming into another of an oppoſite temperature; and thus two perſons, one uſed to a cold climate, like that of the mountains, the other to a hot, like that of Guayaquil, muſt, at coming into an intermediate temperature, as at Tarigagua, feel an equal difference; one with regard to heat, and the other with regard to cold; which demonſtrates that famous opinion—that the ſenſes are ſubject to as many apparent alterations, as the ſenſations are various in thoſe who feel them. For the impreſſions of objects are different, according to the different diſpoſition of the ſenſes; and the organs of two perſons differently diſpoſed are differently affected. At a quarter paſt nine in the morning we began to aſcend the mountain of San Antonio, the foot of which is at Tarigagua; and, at one, came to a place called by the Indians Guamac, or Croſs of Canes. Here is a ſmall but inclining plain; and being told that it was half way up the acclivity, and our beaſts requiring reſt, we halted here.

The ruggedneſs of the road from Tarigagua leading up this mountain is not eaſily deſcribed. It gave us more trouble and fatigue, beſides the dangers we were every moment expoſed to, than all we had experienced in our former journeys. In ſome parts the declivity is ſo great that the mules can ſcarce keep their footing, and in others the acclivity is equally difficult. In many places the road is ſo narrow that the mules have ſcarce room to ſet their feet; and in others a continued ſeries of precipices. Beſides, theſe roads, or rather paths, are full of holes, or camelones, near three quarters of a yard deep, in which the mules put their fore and hind feet; ſo that ſometimes they draw their bellies and riders' legs along the ground. Indeed theſe holes ſerve as ſteps, without which the precipices would be in a great meaſure impracticable. But ſhould the creature happen to put his foot between two of theſe holes, or not place it right, the rider falls, and, if on the ſide of the precipice, inevitably periſhes. It may perhaps be ſaid, that it would be much ſafer to perform this part of the journey on foot: but how can any perſon be ſure always of placing his feet directly on the eminences between the holes; and the leaſt falſe ſtep throws him up to the waiſt in a ſlimy mud, with which all the holes are full; and then he will find it very difficult either to proceed or return back.

Theſe holes, or camelones, as they are called, render all this road very toilſome and dangerous, being as it were ſo many obſtacles to the poor mules; though the danger is even greater in thoſe parts where they are wanting. For as the tracks are extremely ſteep and ſlippery, from the ſoil, which is chalky and continually wet; ſo they would be quite impracticable, did not the Indians go before, and dig little trenches acroſs the road, with ſmall ſpades which they carry with them for this purpoſe; and thus both the difficulty and danger of theſe craggy paths are greatly leſſened. This work is continual, every drove requiring a repetition of it; for in leſs than a night the rain utterly deſtroys all the trenches cut by ſeveral hands the preceding day. The trouble of having people going before to mend the road; the pains ariſing from the many falls and bruiſes; and the diſagreeableneſs of ſeeing one's ſelf entirely covered with dirt, and wet to the ſkin, might be the more cheerfully ſupported, were they not augmented by the ſight of ſuch frightful precipices, and deep abyſſes, as muſt fill the traveller's mind with terror. For, without the leaſt exaggeration, it may be ſaid, that in travelling this road, the moſt reſolute tremble.

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The manner of deſcending from theſe heights is not leſs difficult and dangerous. In order to underſtand this, it is neceſſary to obſerve, that in thoſe parts of the mountains, the exceſſive ſteepneſs will not admit of the camelones being laſting; for the waters, by continually ſoftening the earth, waſh them away. On one ſide are ſteep eminences, and on the other frightful abyſſes; and as they generally follow the direction of the mountain, the road, inſtead of lying in a level, forms two or three ſteep eminences and declivities, in the diſtance of two or three hundred yards: and theſe are the parts where no camelones can be laſting. The mules themſelves are ſenſible of the caution requiſite in theſe deſcents; for, coming to the top of an eminence, they ſtop, and having placed their fore feet cloſe together, as in a poſture of ſtopping themſelves, they alſo put their hinder feet together, but a little forwards, as if going to lie down. In this attitude, having as it were taken a ſurvey of the road, they ſlide down with the ſwiftneſs of a meteor. All the rider has to do is to keep himſelf faſt in the ſaddle without checking his beaſt; for the leaſt motion is ſufficient to diſorder the equilibrium of the mule, in which caſe they both unavoidably periſh. The addreſs of theſe creatures is here truly wonderful; for, in this rapid motion, when they ſeem to have loſt all government of themſelves, they follow exactly the different windings of the road, as if they had before accurately reconnoitred, and previouſly ſettled in their minds, the route they were to follow, and taken every precaution for their ſafety, amidſt ſo many irregularities. There would indeed otherwiſe be no poſſibility of travelling over ſuch places, where the ſafety of the rider depends on the experience and addreſs of his beaſt.

But the longeſt practice of travelling theſe roads cannot entirely free them from a kind of dread or horror which appears when they arrive at the top of a ſteep declivity. For they ſtop without being checked by the rider; and if he inadvertently endeavours to ſpur them on, they continue immoveable; nor will they ſtir from the place till they have put themſelves in the above-mentioned poſture. Now it is that they ſeem to be actuated by reaſon; for they not only attentively view the road, but tremble and ſnort at the danger, which, if the rider be not accuſtomed to theſe emotions, cannot fail of filling him with terrible ideas. The Indians go before, and place themſelves along the ſides of the mountain, holding by the roots of trees, to animate the beaſts with ſhouts, till they at once ſtart down the declivity.

There are indeed ſome places where theſe declivities are not on the ſides of precipices; but the road is ſo narrow and hollow, and the ſides nearly perpendicular, that the danger is almoſt equal to the former; for the track being extremely narrow, and the road ſcarce wide enough to admit the mule with its rider, if the former falls, the latter muſt be neceſſarily cruſhed; and for want of room to diſengage himſelf, generally has a leg or an arm broken, if he eſcapes with life. It is really wonderful to conſider theſe mules, after having overcome the firſt emotions of their fear, and are going to ſlide down the declivity, with what exactneſs they ſtretch out their fore-legs, that by preſerving the equilibrium they may not fall on one ſide; yet at a proper diſtance make, with their body, that gentle inclination neceſſary to follow the ſeveral windings of the road; and, laſtly, their addreſs in ſtopping themſelves at the end of their impetuous career. Certainly the human ſpecies themſelves could not ſhow more prudence and conduct. Some mules, after being long uſed to theſe journeys, acquire a kind of reputation for their ſkill and ſafety, and accordingly are highly valued.

The worſt ſeaſons for theſe journeys, though difficult and dangerous at all times, are the beginnings of ſummer and winter; the rain then cauſing ſuch dreadful torrents, that in ſome places the roads are covered with water; and in others ſo damaged, that there is no poſſibility of paſſing, but by ſending Indians before to mend them; though

after all their labour, which muſt be done in haſte, and when thoſe people think them both ſafe and eaſy, they are ſuch as an European ſtranger would willingly avoid.

Beſides, the natural difficulty of all the roads among the mountains is increaſed by the neglect of them, which is greater than could eaſily be conceived. If a tree, for inſtance, happens to fall down acroſs the road, and ſtop up the paſſage, no perſon will be at the pains to remove it; and though all paſſing that way are put to no ſmall difficulty by ſuch an obſtacle, it is ſuffered to continue; neither the government, nor thoſe who frequent the road, taking any care to have it drawn away. Some of theſe trees are indeed ſo large, that their diameter is not leſs than a yard and a half, and, conſequently, fill up the whole paſſage; in which caſe, the Indians hew away part of the trunk, and aſſiſt the mules to leap over what remains; but, in order to this, they muſt be unloaded; and, after prodigious labour, they at laſt ſurmount the difficulty; though not without great loſs of time, and damage to the goods: when, pleaſed with having got over the obſtacle themſelves, they leave the tree in the condition they found it; ſo that thoſe who follow are obliged to undergo the ſame fatigue and trouble. Thus the road, to the great detriment of trade, remains encumbered till time has deſtroyed the tree. Nor is it only the roads over San Antonio, and other mountains between Guayaquil and the Cordillera, that are thus neglected; the caſe is general all over this country, eſpecially where they lead over mountains, and through the foreſts.

On the 18th, at ſix in the morning, the thermometer at Cruz de Canos was at 1010, and after travelling along a road no better than the day before, we arrived at a place, at the end of the acclivity of the mountain, by the Indians called Pucara, which ſignifies a gate or narrow paſs of a mountain; it alſo ſignifies a fortified place, and poſſibly derived its name from its narrowneſs and the natural ſtrength of its ſituation. We now began to deſcend with more eaſe towards the province of Chimbo, though the road was not much better than the former. Here we were met by the corregidor of Guaranda or Chimbo, attended by the provincial alcalde, and the moſt eminent perſons of the town. After complimenting us in the moſt cordial manner on our arrival, we proceeded together, and within a league of the town were met by the prieſt, a Dominican, accompanied by ſeveral of his order, and a great number of the inhabitants, who alſo left the town on the ſame friendly occaſion; and, to heighten the ceremony, had brought with them a troop of cholos, or Indian boys.

Theſe cholos were dreſſed in blue, girded round their waſte with ſaſhes, on their heads a kind of turban, and in their hands they carried flags. This little corps was divided into two or three companies, and went before us dancing, and ſinging ſome words in their language, which, as we were told, expreſſed the pleaſure they received from the ſight of ſuch perſons arrived ſafe in their country. In this manner our cavalcade entered the town, on which all the bells in the place were rung, and every houſe reſounded with the noiſe of trumpets, tabors, and pipes.

On expreſſing to the corregidor our ſurpriſe at this reception, as a compliment far above our rank, he informed us, that it was not at all ſingular, it being no more than what was commonly practiſed when perſons of any appearance enter the town; and that there was no ſmall emulation between the ſeveral towns, in paying theſe congratulations.

After we had paſſed the mountains beyond Pacara, the whole country, within the reach of the eye, during a paſſage of two leagues, was a level and open plain, without trees or mountains, covered with fields of wheat, barley, maize, and other grain, whoſe verdure, different from that of the mountain, naturally gave us great pleaſure; our ſight for near a twelvemonth having been converſant only with the products of hot

and moiſt countries, very foreign to theſe, which nearly reſemble thoſe of Europe, and excited in our minds the pleaſing idea of our native ſoil.

The corregidor entertained us in his houſe at Guaranda till the 21ſt of the ſame month, when we continued our journey to Quito. The thermometer was for three days ſucceſſively at 1004½.

On the 22d, we began to croſs the deſert of Chimborazo, leaving the mountain of that name on the left, and travelling over different eminences and heights, moſt of which were of ſand, the ſnow for a great diſtance forming, as it were, the ſides of the mountain. At half an hour after five in the evening, we arrived at a place called Rumi Machai, that is, a ſtony cave, an appellation derived from a vaſt cavity in a rock, and which is the only lodging travellers find here.

This day's journey was not without its trouble; for, though we had nothing to fear from precipices, or dangerous paſſes, like thoſe in the road to Guaranda, yet we ſuffered not a little from the cold of that deſert, then increaſed by the violence of the wind. Soon after we had paſſed the large ſandy plain, and being thus got over the ſevereſt part of the deſert, we came to the ruins of an ancient palace of Yncas, ſituated in a valley between two mountains; but theſe ruins are little more than the foundations of the walls.

On the 23d, at three quarters after five in the morning, the thermometer was at 1000, or the freezing point, and, accordingly, we found the whole country covered with a hoar froſt; and the hut in which we lay had ice on it. At nine in the morning we ſet out, ſtill keeping along the ſide of Chimborazo. At two, in the afternoon, we arrived at Mocha, a ſmall, mean place; but where we were obliged to paſs the night.

On the 24th, at ſix in the morning, the thermometer was at 1006; and at nine we ſet out for Hambato, which we reached at one in the afternoon, after paſſing ſeveral torrents, breaches, or chaſms of the mountain Carguairaſo, another mountain covered with ſnow, a little north of Chimborazo. Among theſe chaſms is one without water, the earth remaining dry to the depth of twelve feet. This chaſm was cauſed by a violent earthquake, which will be ſpoken of in its place.

On the 25th, the thermometer at Hambato, at half an hour after five in the morning, ſtood at 1010, and on the 26th, at ſix in the morning, at 1009⅔. This day, having paſſed the river of Hambato, and afterwards that of St. Miguel, by help of a wooden bridge, we arrived at Latacunga.

On the 27th, at ſix in the morning, the thermometer was at 1007, when leaving Latacunga we reached in the evening the town of Mula-Halo, having in the way forded a river called Alaques.

On the 28th, the liquor of the thermometer was at the ſame height as at Latacunga, and we proceeded on our journey, arriving in the evening at the manſion-houſe or villa called Chi Shinche. The firſt part of this day's journey was over a large plain, at the end of which we had the pleaſure of paſſing by a ſtructure that belonged to the Pagan Indians, being a palace of the Yncas. It is called Callo, and gave name to the plain. We afterwards came to an acclivity, at the top of which we entered on the plain of Tiopullo, not leſs in extent than the firſt; and at the bottom, towards the north, is the houſe where we were entertained that night.

On the 29th, the thermometer, at ſix in the morning, was at 1003¾. We ſet out the earlier, as this was to be our laſt journey. A road croſſing ſeveral breaches and beaten tracts, brought us to a ſpacious plain called Tura-Bamba, that is, a muddy plain; at the other extremity of which ſtands the city of Quito, where we arrived at

five in the evening. The preſident of the province was Don Dioneſio de Alzedo y Herrera, who, beſides providing apartments for us in the palace of the Audencia, entertained us the firſt three days with great ſplendour, during which we were viſited by the biſhop, the auditors, the canons, the regidores, and all other perſons of any diſtinction, who ſeemed to vie with each other in their civilities towards us.

In order to form an adequate idea of this country, it will not be amiſs, after being ſo particular in deſcribing the diſagreeable parts, and the many dangers to which travellers are expoſed, to add a deſcription of the moſt remarkable productions of nature. The lands between the cuſtom-houſe of Babahoyo, or Caracol, and Guaranda, are of two kinds: the firſt, which extends to Tarigagua, is entirely level; and the ſecond, which begins at that part, wholly mountainous. But both, and even two leagues beyond Pucara, are full of thick foreſts of various kinds of large trees, differing in the foliage, the diſpoſition of their branches, and the ſize of their trunks. The mountains, which form this chain of the Andes, are, on the weſt ſide, covered with woods; but on the eaſt entirely bare. Among theſe mountains is the ſource of that river which, being increaſed on all ſides by brooks, makes ſo grand an appearance between Caracol and Guayaquil, and proves ſo advantageous to the commerce of the country.

In the level part of this woody extent are a great number of animals, and birds, of the ſame kind with thoſe deſcribed in our account of Carthagena, except that to the laſt may be added wild peacocks, buſtards, pheaſants, and a few others, which are here in ſuch abundance, that, did they not always reſt on the tops of the trees, where, either from their enormous height, or being covered with leaves, they are ſecure, a traveller, with a good fowling-piece and ammunition, might at any time procure himſelf an elegant repaſt. But theſe foreſts are alſo terribly infeſted with ſnakes and monkeys, particularly a kind called Marimondas, which are ſo very large, that, when ſtanding on their hind legs, they are little leſs than ſix feet high. They are black, and, in every reſpect, very ugly; but eaſily tamed. None of the foreſts are without them; but they ſeem moſt common in thoſe of Guayaquil.

Among the vegetable productions, I ſhall ſelect three, which to me ſeemed worthy of a particular deſcription; namely, the cana, vijahua, and the bejuco; as they are not only the materials of which the houſes in the juriſdiction of Guayaquil are built, but alſo applied to various other uſes.

The canas, or canes, are remarkable both for their length and thickneſs, and the water contained in their tubes. Their uſual length is between ſix and eight toiſes; and though there is a difference in their ſize, the largeſt do not exceed ſix inches diameter. The wood or ſide of the tube is about ſix lines in diameter; ſo that, when the cana is opened, it forms a board near a foot and a half in breadth; and hence it will not appear ſtrange, that houſes ſhould be built of ſuch materials. From the time of their firſt appearance, till they attain their full perfection, when they are either cut down, or of themſelves begin to dry, moſt of their tubes contain a quantity of water; but with this remarkable difference, that at full moon they are entirely, or very nearly, full; and with the decreaſe of the moon the water ebbs, till at the conjunction little or none is to be found. I have myſelf cut them at all ſeaſons, ſo that I here advance nothing but what I know to be true from frequent experience. I have alſo obſerved that the water, during its decreaſe, appears turbid, but about the time of the full moon it is as clear as cryſtal. The Indians add another particular, that the water is not found in all the joints, one having water, and another not, alternately. All I can ſay to this ſingularity is, that on opening a joint which happens to be empty, the two contiguous ones have water; and this is commonly the caſe in almoſt all the canes. This water is ſaid

to be an excellent preſervative againſt the ill conſequence of any bruiſes; at leaſt it is drunk as ſuch by all who come from the mountains, where ſuch accidents are unavoidable.

The canes being cut, they are left to dry, or, as they ſay here, to be cured; whence they acquire ſuch a degree of ſtrength, that they ſerve either for rafters, beams, flooring, or even maſts for balzas. Ships which load with cacao are alſo ceiled with them, to preſerve the timbers from the great heat of that fruit. They are alſo uſed as poles for litters, and in an infinite number of other particulars.

The vijahua is a leaf generally five feet in length, and two and a half in breadth. They grow wild, and without any ſtem. The principal rib in the middle, is between four and five lines in breadth, but all the other parts of the leaf are perfectly ſoft and ſmooth: the under ſide is green, and the upper white, covered with a very fine white and viſcid down. Beſides the common uſe of it in covering houſes, it alſo ſerves for packing up ſalt, fiſh, and other goods ſent to the mountains; as it ſecures them from the rain. They are alſo, in theſe deſert places, of ſingular uſe for running up huts on any exigency.

The bejucos are a kind of ligneous cordage, and of two kinds; one growing from the earth, and twining round trees; the other ſtrike their roots into certain trees, and from thence derive their nouriſhment. Both kinds, after growing to a great height, incline again to the earth, on which they creep till they meet with another tree, to the top of which they climb as before, and then again renew their inclination towards the earth; and thus form a labyrinth of ligatures. Some are even ſeen extended from the top of one tree to another, like a cord. They are ſo remarkably flexile, that no bending or twiſting can break them. But if not cut at the proper time, they grow of an unwieldy bigneſs. The ſlendereſt of them are about four or five lines in diameter, but the moſt common ſize is between ſix and eight; though there are others much thicker, but of little or no uſe, on account of the hardneſs contracted in their long growth. The chief uſe of them is for laſhing, tying, or faſtening different things together; and, by twiſting ſeveral of them in the nature of ropes, they make cables and hawſers for the balzas and ſmall veſſels; and are found by experience to laſt a long time in the water.

In theſe foreſts alſo grows a tree, called very properly Matapalo, i. e. kill-timber. It is of itſelf a weak tree; but, growing near another of conſiderable bulk, and coming into contact with it, ſhoots above it, when, expanding its branches, it deprives its neighbour of the rays of the ſun. Nor is this all; for, as this imbibes the juices of the earth, the other withers and dies. After which, it becomes lord of the ſoil, and increaſes to ſuch a bulk, that very large canoes are made of it; for which its wood is, of all others, the beſt adapted, being very light and fibrous.

CHAP. II. — *Difficulties attending our making the neceſſary Obſervations for meaſuring the Length of an Arch of the Meridian, and the Manner of our Living during the Operations.*

ALL the progreſs made during one whole year, which we ſpent in coming to Quito, was the ſurmounting the difficulties of the paſſage, and at length reaching that country where we were to enter on the principal part of our commiſſion. Nor will even this appear a ſmall matter, if the great diſtance and diverſity of climates be conſidered. A few of the firſt days after our arrival were ſpent in making proper returns for the civilities

ties we had received from all perſons of rank; after which, we began to deliberate on the beſt methods of performing our work; and the rather, as M. Bouguer and de la Condamine were now arrived. The former reached Quito on the 10th of June, by the ſame road of Guaranda; and the latter on the 4th of the ſame month, having taken his route by the river of Emeralds, in the government of Atacames.

Our firſt operation was, to meaſure a piece of ground, which was to be the baſe of the whole work; and this we finiſhed during the remainder of the current year. But it proved a very difficult and fatiguing operation, from the heat of the ſun, and the winds and rains, which continually incommoded us. The plain made choice of for this baſe is ſituated two hundred and forty nine toiſes lower than Quito, and four leagues to the north-eaſt of that city. It is called the plain of Yaruqui, from a village of that name near it. This plain was particularly choſen, as the beſt adapted to our operations; for though there are ſeveral others in this diſtrict, yet all of them lay at too great a diſtance from the direction of our baſe. The quality, diſpoſition, and lower ſituation, all contribute to render it leſs cold than Quito. Eaſtward it is defended by the lofty Cordillera of Guamani and Pambamarca, and weſtward by that of Pichincha. The ſoil is entirely ſand; ſo that, beſides the heat naturally reſulting from the direct rays of the ſun, it is increaſed by the rays being reverberated by the two Cordilleras; hence it is alſo expoſed to violent tempeſts of thunder, lightning, and rain; but, being quite open towards the north and ſouth, ſuch dreadful whirlwinds form here, that the whole interval is filled with columns of ſand, carried up by the rapidity and gyrations of violent eddy winds, which ſometimes produce fatal conſequences: one melancholy inſtance happened while we were there; an Indian, being caught in the centre of one of theſe blaſts, died on the ſpot. It is not, indeed, at all ſtrange, that the quantity of ſand in one of theſe columns ſhould totally ſtop all reſpiration in any living creature, who has the misfortune of being involved in it.

Our daily labour was, to meaſure the length of this plain in a horizontal direction, and, at the ſame time, by means of a level, to correct the inequalities of the ground; beginning early in the morning, and continuing to purſue our taſk cloſely till evening, unleſs interrupted by extreme bad weather; when we retired to a tent always pitched for that purpoſe, as well as for a retreat at noon, when the heat of the ſun became too great for us, after the fatigue of the morning.

We at firſt intended to have formed our baſe in the plain of Cayambe, ſituated twelve leagues to the north of Quito. Accordingly, the company firſt repaired to this plain, to view it more attentively. In this place we loſt M. Couplet, on the 17th of September 1736, after only two days illneſs. He was indeed ſlightly indiſpoſed when we ſet out from Quito; but, being of a ſtrong conſtitution, his zeal for the ſervice would not permit him to be abſent at our firſt eſſay. On his arrival, however, his diſtemper roſe to ſuch a height, that he had only two days to prepare for his paſſage into eternity; but we had the ſatisfaction to ſee he performed his part with exemplary devotion. This almoſt ſubitaneous death of a perſon in the flower of his age, was the more alarming, as none of us could diſcover the nature of his diſeaſe.

The menſuration of the baſe was ſucceeded by obſerving the angles, both horizontal and vertical, of the firſt triangles we intended to form; but many of them were not purſued, the form and diſpoſition of the ſeries being afterwards altered to very great advantage. In order to this, M. Verguin, with ſome others, was ſent to draw a geopraphical map of the parts ſouth of Quito; whilſt M. Bouguer did the ſame with regard to the northern parts; a taſk we found abſolutely neceſſary, in order to determine the points where the

ſignals

ſignals ſhould be placed, ſo as to form the moſt regular triangles, and whoſe ſides ſhould not be intercepted by higher mountains.

During theſe operations, M. de la Condamine went to Lima, in order to procure money on recommendatory letters of credit, which he had brought from France, for defraying the expences of the company, till remittances arrived; and Don George Juan followed him, in order to confer with the viceroy of Peru, for amicably determining ſome differences which had ariſen with the new preſident.

Theſe two gentlemen, having happily terminated their reſpective affairs, returned to Quito about the middle of June, when both M. Bouguer and thoſe who ſurveyed the ſouthern parts had finiſhed their plans. It was now determined to continue the ſeries of triangles to the ſouth of Quito; and the company accordingly divided themſelves into two bodies, conſiſting of French and Spaniards, and each retired to the part aſſigned him; Don George Juan and M. Godin, who were at the head of one party, went to the mountain of Pambamarca; while M. Bouguer, De la Condamine, and myſelf, together with our aſſiſtants, climbed up to the higheſt ſummit of Pichincha. Both parties ſuffered not a little, both from the ſeverity of the cold, and the impetuoſity of the winds, which on theſe heights blew with inceſſant violence; and theſe difficulties were the more painful to us, as we had been little uſed to ſuch ſenſations. Thus in the torrid zone, nearly under the equinoctial, where it is natural to ſuppoſe we had moſt to fear from the heat, our greateſt pain was cauſed by the exceſſiveneſs of the cold, the intenſeneſs of which may be conjectured from the following experiments made by the thermometer, carefully ſheltered from the wind, on the top of Pichincha; the freezing point being at 1000.

On the 15th of Auguſt, 1737, at twelve at noon, the liquor was at the height of 1003. At four in the evening, at 1001½. At ſix in the evening, at 998½.

On the 16th of Auguſt, at ſix in the morning, at 997. At ten in the forenoon, at 1005. At twelve at noon, at 1008. At five in the evening, at 1001½. At ſix in the evening, at 999½.

On the 17th, at three quarters after five in the morning, at 996. At nine in the morning, at 1001. At three quarters after twelve, at 1010. At a quarter after two in the afternoon, at 1012¾. At ſix in the evening, at 999. And at ten in the evening, at 998.

Our firſt ſcheme for ſhelter and lodging, in theſe uncomfortable regions, was, to pitch a field-tent for each company; but on Pichincha this could not be done, from the narrowneſs of the ſummit; and we were obliged to be contented with a hut, ſo ſmall, that we could hardly all creep into it. Nor will this appear ſtrange, if the reader conſiders the bad diſpoſition and ſmallneſs of the place, it being one of the loftieſt crags of a rocky mountain, one hundred toiſes above the higheſt part of the deſert of Pichincha. Such was the ſituation of our manſion, which, like all the other adjacent parts, ſoon became covered with ice and ſnow. The aſcent up this ſtupendous rock, from the baſe, or the place where the mules could come, to our habitation, was ſo craggy, as only to be climbed on foot, and to perform it, coſt us four hours continual labour and pain, from the violent efforts of the body, and the ſubtility of the air; the latter being ſuch, as to render reſpiration difficult. It was my misfortune, when I climbed ſomething above half way, to be ſo overcome, that I fell down, and remained a long time without ſenſe or motion; and, as I was told, with all the appearances of death in my face. Nor was I able to proceed after coming to myſelf, but was obliged to return to the foot of the rock, where our ſervants and inſtruments remained. The next day I renewed the attempt of climbing the rock; though probably

bably I ſhould have had no better ſucceſs than before, had not ſome Indians aſſiſted me in the moſt ſteep and difficult places.

The ſtrange manner of living which we were reduced to, may not, perhaps, prove unentertaining to the reader; and therefore I ſhall, as a ſpecimen of it, give a ſuccinct account of what we ſuffered on Pichincha. For this deſert, both with regard to the operations we performed there, and its inconveniences, differing very little from others, an idea may be very eaſily formed of the fatigues, hardſhips, and dangers, to which we were continually expoſed. The principal difference between the ſeveral deſerts, conſiſted in their greater or leſſer diſtance from places where we could procure proviſions; and in the inclemency of the weather, which was proportionate to the height of the mountains, and the ſeaſon of the year when we viſited them.

We generally kept within our hut. Indeed, we were obliged to do this, both on account of the intenſeneſs of the cold, the violence of the wind, and our being continually involved in ſo thick a fog, that an object at ſix or eight paces was hardly diſcernible. When the fog cleared up, the clouds, by their gravity, moved nearer to the ſurface of the earth, and on all ſides ſurrounded the mountain to a vaſt diſtance, repreſenting the ſea, with our rock like an iſland in the centre of it. When this happened, we heard the horrid noiſes of the tempeſts, which then diſcharged themſelves on Quito and the neighbouring country. We ſaw the lightnings iſſue from the clouds, and heard the thunders roll far beneath us; and whilſt the lower parts were involved in tempeſts of thunder and rain, we enjoyed a delightful ſerenity; the wind was abated, the ſky clear, and the enlivening rays of the ſun moderated the ſeverity of the cold. But our circumſtances were very different when the clouds roſe; their thickneſs rendered reſpiration difficult; the ſnow and hail fell continually, and the wind returned with all its violence; ſo that it was impoſſible entirely to overcome the fears of being, together with our hut, blown down the precipice on whoſe edge it was built, or of being buried under it by the daily accumulations of ice and ſnow.

The wind was often ſo violent in theſe regions, that its velocity dazzled the ſight; whilſt our fears were increaſed by the dreadful concuſſions of the precipice by the fall of enormous fragments of rocks. Theſe craſhes were the more alarming, as no other noiſes are heard in theſe deſerts. And, during the night, our reſt, which we ſo greatly wanted, was frequently diſturbed by ſuch ſudden ſounds. When the weather was any thing fair with us, and the clouds gathered about ſome of the other mountains which had a connection with our obſervations, ſo that we could not make all the uſe we deſired of this interval of good weather, we left our hut, to exerciſe ourſelves, in order to keep us warm. Sometimes we deſcended to ſome ſmall diſtance, and at others amuſed ourſelves with rolling large fragments of rocks down the precipice; and theſe many times required the joint ſtrength of us all, though we often ſaw the ſame performed by the mere force of the wind. But we always took care, in our excurſions, not to go too far, but that on the leaſt appearance of the clouds gathering about our cottage, which often happened very ſuddenly, we could regain our ſhelter. The door of our hut was faſtened with thongs of leather, and on the inſide not the ſmalleſt crevice was left unſtopped; beſides which, it was very compactly covered with ſtraw. But, notwithſtanding all our care, the wind penetrated through. The days were often little better than the nights; and all the light we enjoyed was that of a lamp or two, which we kept burning, that we might diſtinguiſh one another, and improve our time as much as poſſible in reading. Though our hut was ſmall, and crowded with inhabitants, beſides the heat of the lamps, yet the intenſeneſs of the cold was ſuch, that every one of us was obliged to have a chafing diſh of coals. Theſe precautions would

have

have rendered the rigour of the climate ſupportable, had not the imminent danger of periſhing by being blown down the precipice rouſed us, every time it ſnowed, to encounter the ſeverity of the outward air, and ſally out with ſhovels, to free the roof of our hut from the maſſes of ſnow which were gathering on it. Nor would it, without this precaution, have been able to ſupport the weight. We were not, indeed, without ſervants and Indians; but they were ſo benumbed with the cold, that it was with great difficulty we could get them out of a ſmall tent, where they kept a continual fire. So that all we could obtain from them was, to take their turns in this labour; and even then they went very unwillingly about it, and conſequently performed it ſlowly.

It may be eaſily conceived what we ſuffered from the aſperities of ſuch a climate. Our feet were ſwelled, and ſo tender, that we could not even bear the heat, and walking was attended with extreme pain. Our hands were covered with chilblains; our lips ſwelled and chopped; ſo that every motion, in ſpeaking or the like, drew blood; conſequently we were obliged to a ſtrict taciturnity, and but little diſpoſed to laugh, an extenſion of the lips producing fiſſures, very painful for two or three days together.

Our common food in this inhoſpitable region was a little rice boiled with ſome fleſh or fowl, which we procured from Quito; and, inſtead of fluid water, our pot was filled with ice: we had the ſame reſource with regard to what we drank; and, while we were eating, every one was obliged to keep his plate over a chafing-diſh of coals, to prevent his proviſions from freezing. The ſame was done with regard to the water. At firſt we imagined, that drinking ſtrong liquors would diffuſe a heat through the body, and conſequently render it leſs ſenſible of the painful ſharpneſs of the cold; but, to our ſurpriſe, we felt no manner of ſtrength in them, nor were they any greater preſervative againſt the cold than common water. For this reaſon, together with the apprehenſion that they might prove detrimental to our health, beſides the danger of contracting an ill habit, we diſcontinued their uſe, having recourſe to them but very ſeldom, and then ſparingly. We frequently gave a ſmall quantity to our Indians, together with part of the proviſions which were continually ſent us from Quito, beſides a daily ſalary of four times as much as they uſually earn.

But, notwithſtanding all theſe encouragements, we found it impoſſible to keep the Indians together. On their firſt feeling the rigours of the climate, their thoughts were immediately turned on deſerting us. The firſt inſtance we had of this kind was ſo unexpected, that, had not one of a better diſpoſition than the reſt ſtaid with us, and acquainted us of their deſign, it might have proved of very bad conſequence. The affair was this: there being on the top of the rock no room for pitching a tent for them, they uſed every evening to retire to a cave at the foot of the mountain, where, beſides a natural diminution of the cold, they could keep a continual fire, and conſequently enjoyed more comfortable quarters than their maſters. Before they withdrew at night, they faſtened on the outſide the door of our hut, which was ſo low that it was impoſſible to go in or out without ſtooping; and as every night the hail and ſnow which had fallen formed a wall againſt the door, it was the buſineſs of one or two to come up early and remove this obſtruction, that, when we pleaſed, we might open the door. For though our Negro ſervants were lodged in a little tent, their hands and feet were ſo covered with chilblains, that they would rather have ſuffered themſelves to have been killed than move. The Indians therefore came conſtantly up to diſpatch this work betwixt nine and ten in the morning; but we had not been there above four or five days, when we were not a little alarmed to ſee ten, eleven, and twelve come, without any news of our

labourers, when we were relieved by the honeſt ſervant mentioned above, who had withſtood the ſeduction of his countrymen, and informed us of the deſertion of the four others. After great difficulty, he opened a way for us to come out, when we all fell to clearing our habitation from the maſſes of ſnow. We then ſent the Indian to the corregidor of Quito with advice of our condition, who, with equal diſpatch, ſent others, threatening to chaſtiſe them ſeverely if they were wanting in their duty.

But the fear of puniſhment was not ſufficient to induce them to ſupport the rigour of our ſituation; for within two days we miſſed them. On this ſecond deſertion, the corregidor, to prevent other inconveniences, ſent four Indians under the care of an alcalde, and gave orders for their being relieved every fourth day.

Twenty-three tedious days we ſpent on this rock, viz. to the 6th of September, and even without any poſſibility of finiſhing our obſervations of the angles; for, when it was fair and clear weather with us, the others, on whoſe ſummits were erected the ſignals which formed the triangles for meaſuring the degrees of the meridian, were hid in clouds; and when (as we conjectured, for we could never plainly diſcern them) thoſe were clear, Pichincha was involved in clouds. It was therefore neceſſary to erect our ſignals in a lower ſituation, and in a more favourable region. This, however, did not produce any change in our habitation till December, when, having finiſhed the obſervations which particularly concerned Pichincha, we proceeded to others; but with no abatement either of inconveniences, cold or fatigue, the places where we made all our obſervations being neceſſarily on the higheſt parts of the deſerts; ſo that the only reſpite, in which we enjoyed ſome little eaſe, was during the ſhort interval of paſſing from one to the other.

In all our ſtations ſubſequent to that on Pinchincha, during our fatiguing menſuration of the degrees of the meridian, each company lodged in a field-tent, which, though ſmall, we found leſs inconvenient than our Pinchincha hut, though at the ſame time we had more trouble, being oftener obliged to clear it from the ſnow, as the weight of it would otherwiſe have demoliſhed the tent. At firſt, indeed, we pitched it in the moſt ſheltered places; but, on taking a reſolution that the tents themſelves ſhould ſerve for ſignals, to prevent the inconvenience of thoſe of wood, we removed them to a more expoſed ſituation, where the impetuoſity of the winds ſometimes tore up the piquets, and blew them down. Then we were not a little pleaſed with our having brought ſupernumerary tents, and with our dexterity in pitching another inſtead of that which the wind had torn away. Indeed, without this precaution, we ſhould have been in the utmoſt danger of periſhing. In the deſert of Aſuay we particularly experienced the benefit of this expedient; three tents belonging to our company being obliged to be pitched one after another, till at laſt they all became unfit for uſe, and two ſtout poles were broken. In this terrible condition our only reſource was to quit the poſt, which was next to the ſignal of Sinaſaguan, and ſhelter ourſelves in a breach or chaſm. The two companies were both at that time on this deſert, ſo that the ſufferings of both were equal. The Indians who attended us, not willing to bear the ſeverity of the cold, and diſguſted with the frequent labour of clearing the tent from the ſnow, at the firſt ravages of the wind, deſerted us. Thus we were obliged to perform every thing ourſelves, till others were ſent us from a ſeat about three leagues diſtant at the bottom of the mountain.

While we were thus labouring under a variety of difficulties from the wind, ſnow, froſt, and the cold, which we here found more ſevere than in any other part; forſaken by our Indians, little or no proviſions, a ſcarcity of fuel, and in a manner deſtitute of ſhelter, the good prieſt of Cannar, a town ſituated at the foot of theſe Cordilleras, ſouth-weſt from the ſignal of Sinaſaguan, about five leagues from it, and the road very diffi-

cult, was offering his prayers for us; for he, and all the Spaniards of the town, from the blackneſs of the clouds, gave us over for loſt; ſo that, after finiſhing our obſervations, we paſſed through the town, they viewed us with aſtoniſhment, and received us with the moſt cordial ſigns of delight, adding their congratulations, as if we had, amidſt the moſt threatening dangers, obtained a glorious victory: and, doubtleſs, our operations muſt appear to them a very extraordinary performance, if we conſider the inexpreſſible horror with which they view thoſe places where we had paſſed ſo many days.

It was at firſt determined to erect ſignals of wood in the form of a pyramid; but to render our ſtay in the piercing colds of theſe regions as ſhort as poſſible, we abandoned that intention, of which there would have been no end; becauſe, after remaining ſeveral days in the denſeſt parts of the clouds, when a clear interval happened, the ſignals could not be diſtinguiſhed: ſome the winds had blown down, and others had been carried away by the Indians who tended their cattle on the ſides of the mountains, for the ſake of the timber and ropes. To remedy which, the only expedient was to make the very tents in which we lodged ſerve for ſignals; for the orders of the magiſtrates, and threatenings of the prieſts, were of little conſequence in ſuch a deſert country, where it was almoſt impoſſible to diſcover the delinquents.

The deſerts of the mountains of Pambamarca and Pichincha were the noviciates, in which we were inured to the ſevere life we led from the beginning of Auguſt 1737 to the end of July 1739. During which time, our company occupied thirty-five deſerts, and that of Don George Juan, thirty-two, the particulars of which ſhall be enumerated, together with the names of all thoſe on which we erected ſignals for forming the triangles; in all which the inconveniences were the ſame, except that they became leſs ſenſible, in proportion as our bodies became inured to fatigue, and naturalized to the inclemencies of thoſe regions, ſo that in time we were reconciled to a continual ſolitude, coarſe proviſions, and often a ſcarcity of theſe. The diverſity of temperatures did not in the leaſt affect us, when we deſcended from the intenſe cold of one of thoſe deſerts into the plains and valleys, where the heat, though but moderate, ſeemed exceſſive to thoſe coming from ſuch frozen regions. Laſtly, without any concern, we encountered the dangers unavoidable among thoſe ſteep precipices, and a great variety of others to which we were continually expoſed. The little cabins of the Indians, and the ſtalls for cattle ſcattered up and down on the ſkirts of the mountains, and where we uſed to lodge in our paſſage from one deſert to another, were to us ſpacious palaces; mean villages appeared like ſplendid cities, and the converſation of a prieſt, and two or three of his companions, charmed us like the banquet of Xenophon: the little markets held in thoſe towns, when we happened to paſs through them on a Sunday, ſeemed to us as if filled with all the variety of Seville fair. Thus the leaſt object became magnified, when we deſcended for two or three days from our exile, which in ſome places laſted fifty days ſucceſſively; and it muſt be owned, that there were particular occaſions when our ſufferings were ſuch that nothing could have ſupported us under them, and animated us to perſevere, but that honour and fidelity which jointly conſpired to induce both companies, whatever ſhould be the conſequence, not to leave imperfect a work ſo long deſired by all civilized nations, and ſo particularly countenanced by the two powerful monarchs our ſovereigns.

It may not be amiſs here to inform the reader of the different opinions conceived by the neighbouring inhabitants, with regard to our enterpriſe. Some admired our reſolution, others could not tell what conſtruction to put upon our perſeverance; and even thoſe of the beſt parts and education among them were utterly at a loſs what to think. They made it their buſineſs to examine the Indians concerning the life we led, but the

anſwers they received only tended to increaſe their doubts and aſtoniſhment. They ſaw that thoſe people, though naturally hardy, robuſt, and inured to fatigues, could not be prevailed upon, notwithſtanding the encouragement of double pay, to continue any time with us. The ſerenity in which we lived on thoſe dreaded places was not unknown to them; and they ſaw with what tranquillity and conſtancy we paſſed from one ſcene of ſolitude and labour to another. This to them appeared ſo ſtrange, that they were at a loſs what to attribute it to. Some conſidered us as little better than lunatics, others more ſagaciouſly imputed the whole to covetouſneſs, and that we were certainly endeavouring to diſcover ſome rich minerals by particular methods of our own invention; others again ſuſpected that we dealt in magic; but all were involved in a labyrinth of confuſion with regard to the nature of our deſign. And the more they reflected on it, the greater was their perplexity, being unable to diſcover any thing proportionate to the pains and hardſhips we underwent. And even when we informed them of the real motive of this expedition, which cauſed ſo much aſtoniſhment, their ignorance of its importance would not ſuffer them to give credit to what we ſaid; ſuſpecting that we concealed, under the veil of an incomprehenſible chimera, our real practices, of which, as I have already obſerved, they had no good opinion.

Among ſeveral pleaſant adventures which this occaſioned, I ſhall only mention two, both of which are ſtill freſh in my memory; and may ſerve to illuſtrate the ſtrange ideas theſe ignorant people formed of us. While we were at the ſignal of Vengotaſin, erected on a deſert at no great diſtance from the town of Latacunga, about a league from the place where we had pitched our field-tent was a cow-houſe, where we conſtantly paſſed the night; for the aſcent not being remarkably difficult, we could every morning, in fair weather, return ſoon enough to the tent to begin our obſervations. One morning as we were paſſing to the ſignal, we ſaw at a diſtance three or four Indians, in appearance on their knees; and we found indeed, on our approaching nearer, that this was their real poſture; we alſo obſerved that their hands were joined, and that they uttered words in their language with the greateſt fervour and the moſt ſupplicant accent; but by the poſition of their eyes, it was evident that we were the perſons whom they thus addreſſed. We ſeveral times made ſigns for them to riſe, but they ſtill kept their poſture till we were got at a conſiderable diſtance. We had ſcarce begun to prepare our inſtruments within the tent, when we were alarmed with a repetition of the ſame ſupplicant vociferations. On going out to know the cauſe, we found the ſame Indians again on their knees before the tent; nor were we able, by all the ſigns we could make, to raiſe them from that poſture. There fortunately happened at that time to be with us a ſervant who underſtood both the Indian and Spaniſh languages; and having directed him to aſk theſe poor people what they wanted of us, we were informed that the eldeſt of them was the father of the others, and that his aſs being either ſtrayed or ſtolen, he came to us, as perſons who knew every thing, to entreat us to commiſerate his great loſs, and put him in a method of recovering his beaſt. This ſimplicity of the Indians afforded us no ſmall entertainment; and though we did all we could, by means of our interpreter, to undeceive them, we found they were equally tenacious of this ſtrange error as of genuflexion; and would ſtill believe, that nothing was hid from us; till having wearied themſelves with theſe clamorous vociferations, and finding we took no notice of them, they retired, with all the marks of extreme ſorrow that we would not condeſcend to inform them where they might find the aſs; and with a firm perſuaſion that our refuſal proceeded from ill-nature, and not from ignorance.

The other adventure I ſhall mention, happened to myſelf in particular, and not with ſimple and ignorant Indian peaſants, but with one of the principal inhabitants of Cuenca. While the whole company were on the mountain of Bueran, not far from the town of Cannar, I received a meſſage from the prieſt of that place, informing me, that two Jeſuits of my acquaintance were paſſing that way, and, if I was deſirous of ſeeing them, I might find them at his houſe. As I was cheerfully deſcending the mountain to enjoy this pleaſing invitation, I happened to be overtaken by a gentleman of Cuenca, who was going to take a view of his lands in that juriſdiction, and had obſerved me coming from our tent. He was, it ſeems, acquainted with my name, though he had never ſeen me; but obſerving me dreſſed in the garb of the Meſtizos, and the loweſt claſs of people, the only habit in which we could perform our operations, he took me for one of the ſervants, and began to examine me; and I was determined not to undeceive him till he had finiſhed. Among other things, he told me, that neither he nor any body elſe would believe, that the aſcertaining the figure and magnitude of the earth, as we pretended, could ever induce us to lead ſuch a diſmal and uncouth life; that, however we might deny it, we had doubtleſs diſcovered many rich minerals on thoſe lofty deſerts; adding, that perſons in his circumſtances were not to be ſatisfied with fine words. Here I laboured to remove the prejudices he entertained againſt our operations; but all I could ſay only tended to confirm him in his notion; and, at parting, he added, that doubtleſs, by our profound knowledge in the magic art, we might make much greater diſcoveries than thoſe who were ignorant of it. Theſe opinions were blended with others equally abſurd and ridiculous; but I found it impoſſible to undeceive him, and accordingly left him to enjoy his own notions.

Our ſeries of triangles in the ſouth part being finiſhed, and a ſecond baſe meaſured by each company, to prove the truth of our work, we began our aſtronomical obſervations; but our inſtruments not being perfectly adapted to that intention, we were obliged, in the month of December of the ſame year, to return to Quito, in order to conſtruct another, on whoſe accuracy we could ſafely rely; and this employed us till the firſt of Auguſt of the following year 1740; when, without any farther loſs of time, we again repaired to Cuenca, and immediately began our obſervations; but theſe being very tedious, were not finiſhed before the end of September; the atmoſphere of that country being very unfavourable to aſtronomical obſervations. For, in the deſerts, the clouds in which we were ſo frequently involved hindered us from diſcerning the other ſignals; and in the city, over which they ſpread a kind of perpetual pavilion, they hid the ſtars from us while they paſſed the meridian; but patience and reſolution, inſpired by the importance of our enterpriſe, having enabled us at laſt to perform our taſk on the ſouth ſide of the equator, we prepared for our journey to the north of it, in order to make the aſtronomical obſervations at the other extremity of the arch of the meridian, and thus put the finiſhing hand to our work: but this was for ſome time retarded by an accident of importance which called us to Lima.

In December 1743, the reaſons which detained us at Lima, Guayaquil, and in Chili, no longer ſubſiſting, we returned to Quito in January 1744, when Don George Juan and I prolonged the arch of the meridian four triangles, by which it was extended to the place where M. Godin, in 1740, had made the ſecond aſtronomical obſervation, and which he now repeated, and finiſhed in the month of May 1744.

Meſſrs. Bouguer and M. de la Condamine having at that time finiſhed the ſeveral parts aſſigned to them, had left Quito, in order to return to France; the former by the way of Carthagena, and the latter by the river of the Amazons; but the reſt of the company remained there ſome time; ſome for fear of being taken by the enemy, ſome for want

want of the means to defray the charges neceſſary in ſo long a journey, and others on account of their having contracted ſome obligations, and were unwilling to leave the country till they could diſcharge them. So that in the former only the natural deſire of returning to their country prevailed, in order there to repoſe themſelves after ſuch a ſeries of labours and hardſhips, by which the health and vigour of all were in ſome meaſure impaired.

CHAP. III. — *The Names of the Deſerts and other Places where the Signals were erected for forming the Series of Triangles for meaſuring an Arch of the Meridian.*

IN order to gratify the curioſity of the reader with regard to our operations, I ſhall mention in ſeparate articles, the places where each company made their obſervations, and the time they were obliged to remain there; omitting a detail of circumſtances, many of which would be little more than a paraphraſe on the ſubject of the preceding chapter. Nor ſhall I here include thoſe ſtations uſed in the year 1736, after meaſuring the baſe of Yaruqui, both on its extremities and in the deſerts of Pambamarca and Yllahalo; for the diſpoſition of the triangles being afterwards altered, they were repeated. Therefore, conſidering them as not uſed at that time, I ſhall begin with thoſe ſtations in which no ſuch circumſtances happened, and range them in the order they were occupied.

Deſerts on which the Signals were erected for the Operations conducted by M. de la Condamine and myſelf.

I. — SIGNAL on the Deſert of Pichincha.

The ſignal was at firſt erected on the higheſt ſummit of Pichincha, but afterwards removed to another ſtation at the foot of the pic; the top having been afterwards found not to be the moſt proper place. We began our obſervations on this mountain on the 14th of Auguſt 1737, but could not finiſh them before the beginning of December following.

II. — THE Signal on Oyambaro, the South Extremity of the Baſe of Yaruqui.

On the 20th of December 1737, we removed to Oyambaro; and finiſhed our obſervations neceſſary to be made there on the 29th of the ſame month.

III. — SIGNAL on Caraburu, the Northern Extremity of the Baſe of Yaruqui.

On the 30th of December we paſſed to Caraburu, and continued there till the 24th of January 1738. This long ſtay was partly occaſioned by the badneſs of the weather, and partly by the want of ſignals.

IV. — SIGNAL on the Deſert of Pambamarca.

On this deſert of Pambamarca, where we had before been in 1736, on finiſhing the meaſurement at Yaruqui, a ſecond ſignal was erected here, and we went up the 26th of January 1738, where we remained till the 8th of February; and though we had not here the difficulties of the ice and ſnow to ſtruggle with, as on Pichincha and other ſubſequent

ſubſequent ſtations, yet we were extremely incommoded by the velocity of the winds, which were ſo violent that it was difficult to ſtand; and, notwithſtanding the beſt ſhelter poſſible to be procured, we often found it very difficult to keep the inſtrument ſteady; which, of conſequence, greatly increaſed the difficulty of making the obſervations with the neceſſary accuracy.

V. — SIGNAL on the Mountain of Tanlagua.

On the 12th of February we aſcended the mountain of Tanlagua; and having the next day finiſhed our obſervations, returned. If this mountain be but ſmall in compariſon of others in this Cordillera, and thus ſaved us the many inconveniencies of a lofty ſtation, yet the ſteepneſs of its ſides put us to no ſmall difficulty, there being no other poſſible method of going up than by climbing; and the greateſt care is requiſite in fixing the hands and feet cloſe and firm; nor is it poſſible to climb it in leſs than four hours. The deſcent, as may naturally be concluded, is little leſs hazardous, as you muſt ſit and ſlide down much the greater part of it; and this muſt be done gently, leſt, by celerity of motion, you tumble down the precipice.

VI. — SIGNAL on the Plain of Changalli.

On the 17th of March we removed to the ſignal of Changalli, and finiſhed the neceſſary obſervations on the 20th. We ſpent the time here very comfortably. The ſignal was erected on a plain, where neither the air nor weather moleſted us; and being lodged in a farm-houſe near the ſignal, and not far from the town of Pintac, we had all the neceſſary conveniencies of life, the want of which we often ſeverely felt in the deſerts. Theſe comforts did not, however, in the leaſt abate our diligence to avail ourſelves of every inſtant when the ſignals on the mountains were not concealed in clouds. But one circumſtance which lengthened our ſtay was, that ſome of the ſignals were wanting, having been blown down by the wind; it was therefore reſolved, that for the future the field-tents ſhould ſerve for ſignals. And, accordingly, we afterwards conſtantly purſued this method.

VII. — SIGNAL on the Deſert of Pucaguaico, on the Side of the Mountain Catopaxi.

This mountain we aſcended the 21ſt of March, and on the 4th of April were obliged to return, after in vain endeavouring to finiſh our obſervations. For, not to mention our own ſufferings, the froſt and ſnow, together with the winds, which blew ſo violently that they ſeemed endeavouring to tear up that dreadful volcano by its roots, rendered the making obſervations abſolutely impracticable. Such is indeed the rigour of this climate, that the very beaſts avoid it; nor could our mules be kept at the place where we, at firſt, ordered the Indians to take care of them; ſo that they were obliged to wander in ſearch of a milder air, and ſometimes to ſuch a diſtance that we had often no ſmall trouble in finding them.

At Pucaguaico we however ſaw the neceſſity of either erecting the ſignal further to the ſouth, or ſetting up another in the intermediate ſpace. Several conſultations were held, to determine on the beſt method; but, as other things were neceſſary to be done before we came to a concluſion, the operations were ſuſpended, and the interval ſpent in making obſervations on the velocity of ſound, and other phyſical ſubjects. Every thing being ready for renewing our operations, we a ſecond time aſcended Pucaguaico

on

on the 16th of Auguſt, and it was our good fortune by the 22d to have finiſhed all our neceſſary operations.

VIII. — SIGNAL on the Deſert Corazon.

On the 12th of July, before we had finiſhed our operations at the ſtation of Pucaguaico, we aſcended to the deſert Corazon, where we ſtaid till the 9th of Auguſt. This mountain is nearly of the ſame height with that of Pichincha; and its loftieſt ſummit, like that of the former, a rock of conſiderable altitude. At the foot of this rock the ſignal was erected; and thus our ſtation nearly reſembled that of Pichincha. There was indeed this conſiderable difference, that our ſufferings from the winds, froſt, and ſnows, were conſiderably leſs.

IX. — SIGNAL on Papa-urco.

It had been determined that Papa-urco ſhould be the place where the intermediate ſignal betwixt thoſe of Pucaguaico and Vengotaſin ſhould be erected. This mountain, which is of a middling height, we aſcended the 11th of Auguſt, and continued on it till the 16th, when we returned to Pucaguaico; ſo that this eaſy mountain was a kind of reſting-place between the two painful ſtations of Corazon and Pucaguaico.

X. — SIGNAL on the Mountain of Milin;

Whoſe height is nearly the ſame with that of the Papa-urco. We aſcended it on the 23d of Auguſt, and by the 29th had finiſhed the neceſſary obſervations.

XI. — SIGNAL on the Mountain Vengotaſin.

The mountain of Vengotaſin is not remarkably high, but our ſtay on it was longer than we at firſt imagined; for, after finiſhing our obſervations on the 4th of September, ſome difficulties which aroſe with regard to the poſition of the following ſignal towards the ſouth detained us till the 18th. However, the town of Latacunga being contiguous to the ſkirts of this mountain, and having ſeveral farms in its neighbourhood, we were at no loſs for many conveniencies of which we were deſtitute in ſeveral other ſtations.

XII. — SIGNAL on the Mountain of Chalapu.

Our ſtay on this mountain was ſhorter than on any other in the whole ſeries of triangles; for we continued only part of four days, going up the 20th and coming down the 23d. It is none of the higheſt mountains, and has in its neighbourhood the town of Hambato, and its ſkirts diverſified with ſeats and farms; but the aclivity is ſo ſteep, that the ſafeſt way is to aſcend it on foot.

XIII. — SIGNAL of Chichichoco.

The ſignal of Chichichoco was erected on the ſide of the mountain of that name, which is a branch of the famous ſnowy mountain of Carguairaſo. Here we ſtayed only from the 24th to the 29th of September. Though the ſpot where we placed the ſignal was of a very inconſiderable height when compared with that of the other mountains, yet, from its proximity to Carguairaſo, when the wind blew from that quarter, it was conſiderably cold, but not comparable to that we felt on the deſerts, where every part

part was covered with ice, hail, or ſnow. The day we left this place, while our Indians were loading the mules, and we in the tent ready to ſet out on our journey, an earthquake was felt, which reached four leagues round the country. Our tent rocked from ſide to ſide, in conformity to the undulating motion obſerved in the earth; this ſhock was only one of the ſmall concuſſions frequent in thoſe parts.

XIV. — Signal of Mulmul.

This ſignal, and the three following, occaſioned ſeveral journeys from one to another; as, for the greater accuracy of the obſervations, auxiliary triangles were to be formed, in order to verify the diſtances reſulting from the principal. The difficulty alſo of reciprocally diſtinguiſhing ſome ſignals from others, obliged us to change their poſition, till they ſtood in proper places; and conſequently laid us under a neceſſity of going often from one ſtation to another. On the 8th of November, having finiſhed all our obſervations, the company removed to Riobamba, where I myſelf had been confined ever ſince the 20th of October, with a critical diſeaſe, which at firſt attacked me at Chichichoco, and increaſing at Mulmul, I was obliged to remain in a cow-houſe on that mountain, from whence I was removed to Riobamba; and this accident hindered me from being preſent at the ſignals XV. XVI. and XVII. which were thoſe of Guayama, Limal, and Nabuſo.

XVIII. — Signal of Siſa-pongo.

At the ſignal of Siſa-pongo we continued from the 9th to the end of November; and here the trigonometrical obſervations were intermitted till Don George Juan and M. Godin returned from Quito, to which city they repaired in order to take ſome meaſures neceſſary for the continuation of the work. But, that this interval might not be loſt, M. Bouguer propoſed to make ſome experiments, in order to demonſtrate the ſyſtem of attraction. The place he made choice of for theſe experiments was the mountain of Chimborazo. In this ſtation, and the following, of the ſandy deſert of the ſame mountain, we ſuffered more than on any other.

XIX. — Signal of Lalanguſo.

On the deſert of Lalanguſo, our obſervations were continued from the 24th to the 31ſt of January 1739.

XX. — Signal on the Deſert of Chuſay.

The ſtation on the deſert of Chuſay was one of the moſt tedious in the whole ſeries of triangles, being unavoidably detained on this diſagreeable mountain from the 1d of February to the 24th of March. This delay was occaſioned by the difficulty of pitching on proper places for erecting the ſucceeding ſignals, that they might ſtand in full view, be eaſily diſtinguiſhed one from another, and form regular triangles. This was indeed a difficult taſk, the lofty ſummits of the mountains of the Cordillera of Azuay, where they were to be placed, intercepting each other from our ſight. The tedioufneſs of this ſtation was increaſed by the rigour of the weather, the ſtrength of the winds, and its great diſtance from any place where we could procure convenient ſhelter and refreſhments.

XXI. — Signal on the Defert of Tialoma.

On the defert of Tialoma we continued from the 26th of March to the 25th of April, but had little, except the length of the time, to complain of.

XXII.—Signal on the Defert of Sinafaguan.

We arrived at the defert of Sinafaguan on the 27th of April, and left it on the 9th of May, the only clear day we had during our ftay; but as we have already mentioned our fufferings on this defert, it will be unneceffary to repeat them here.

XXIII. — Signal on the Defert of Bueran.

We continued on the defert of Bueran from the 10th of May to the 1ft of June; but, befides the fmall height of the mountain, the town of Cannar being only two leagues diftant from it, we were in want of nothing. The temperature of the air was alfo much more mild than on the other deferts; befides, we had the great fatisfaction of relieving our folitude by going to hear mafs on Sundays, and other days of precept, in the town. Thefe comforts had, however, fome allay; for while we continued on this defert, the animals, cottages, and Indians, fuffered three times in a very melancholy manner by tempefts of lightning, which fell on the neighbouring plains; all thofe countries, efpecially the defert of Burgay, which borders on that of Bueran, being fubject to terrible ftorms.

XXIV. — Signal on the Defert of Yafuay.

Our obfervations at the fignal of Yafuay were not finifhed till the 16th of July; there being a neceffity, before we could conclude them, to pitch on the moft convenient place for meafuring a fecond bafe, in order to prove the accuracy of all the preceding geometrical operations; and, after fixing on a proper fpot, to determine where the fignals between Yafuay and the bafe could be moft properly placed. In order to this, we went to Cuenca, and from thence proceeded to the plains of Talqui and los Bannos. At laft it was determined that the bafe fhould be meafured in the former, by which the refult of the triangles was to be verified by my company, and that of the other in the plain of Los Bannos. The requifite fignals alfo were erected; and we returned to the defert of Yafuay, where we continued our obfervations, which employed us from the 7th to the 16th of July. Though this mountain is one of the higheft in the whole territory of Cuenca, and the afcent fo fteep that there is no going up but on foot, nor even by that method without great labour, yet the cold is far from being fo intolerable as on Sinafaguan and the deferts north of that mountain. So that we cheerfully fupported the inconveniences of this ftation.

XXV. — Signal on the Mountain of Borma.

This mountain is but low, as are all the others in the neighbourhood of Cuenca, fo that here we were not impeded by any cloudy fummits. It was alfo our good fortune that Yafuay, contrary to our apprehenfions, was clear and vifible the whole 19th of July; fo that we finifhed our obfervations in two days agreeably.

XXVI.

XXVI. XXVII. XXVIII. XXIX. — SIGNALS of Pugin, Pillachiquir, Alparupaſca, and Chinan.

The two laſt being the north and ſouth extremities of the baſe of Talqui, the four ſtations of Pugin, Pillachiquir, Alparupaſca, and Chinan did not require our attendance; for being near the baſe of Talqui, we daily went from the farm-houſes where we lodged, and obſerved the angles, except that of Pillachiquir, to which, on account of its greater diſtance than that of the other ſignals, there was a neceſſity for our viſiting; but happily concluding our obſervations the ſame day we reached it, there was no reaſon for our longer ſtay.

XXX. XXXI. — SIGNALS of Guanacauri, and the Tower of the great Church of Cuenca.

The ſeries of triangles, except the two laſt at the extremities of the ſecond baſe, being finiſhed, it was neceſſary to form other triangles, in order to fix the place of the obſervatory where, when the geometrical obſervations were finiſhed, the aſtronomical were to begin. Thoſe which fell to my lot, were a ſignal on the mountain of Guanacauri, and the tower of the great church of Cuenca; and theſe angles were taken at the ſame time the aſtronomical obſervations were making.

At the north extremity of the arch of the meridian new triangles were afterwards formed, as we have already obſerved in the foregoing chapter. This rendered it neceſſary for us to make choice of different places on theſe mountains for erecting other ſignals in order to form theſe triangles. The ſame order which had been followed during the whole ſeries of menſuration, that each perſon ſhould take two angles of every triangle, was obſerved here; and thoſe aſſigned to me were the following:

XXXII. XXXIII. XXXIV. XXXV. — SIGNALS on Guapulo, the Mountain of Campanario, and thoſe of Coſin, and Mira.

The obſervations to be made at theſe four ſtations could not be finiſhed till thoſe alarming reaſons which called us to Lima and Chili no longer ſubſiſted, and we were returned to Quito. The work at the firſt and laſt ſtations was diſpatched without the neceſſity of lodging there; for, being near Quito and the village of Mira, when the weather promiſed us a favourable opportunity, it was only an eaſy ride; but we found it very different with regard to the ſtations of Campanario and Coſin. However, we left all the four at the ſame time, namely, on the 23d of May 1744; the day when Don George and myſelf put the finiſhing hand to the aſtronomical obſervations which we had re-aſſumed on the 14th of February of the ſame year; and thus the whole proceſs relative to the menſuration of an arch of the meridian was concluded.

Signals erected on Deſerts, &c. where the Obſervations were conducted by Mr. Godin and Don George Juan.

The ſtations immediately ſubſequent to the admeaſurement of the baſe of Yaruqui, in the year 1736, and afterwards not made uſe of, as we have already obſerved, were common to both companies; the method which was afterwards followed, for every one to obſerve two angles in all the triangles, not having been thought of; though it both ſhortened the work, and, at the ſame time, rendered it much eaſier: ſo that Don George

Juan and Mr. Godin were on the deſerts of Yllahalo and Pambamarca, at the ſame time with Meſſ. Bouguer and Condamine and myſelf.

I. II. — SIGNALS on the Extremities of the Baſe of Yaruqui.

In order to make the neceſſary obſervations relating to theſe two ſignals, they left Quito on the 20th of Auguſt 1737, and had completely finiſhed them by the 27th.

III. — SIGNAL on the Deſert of Pambamarca..

After they had concluded all the neceſſary obſervations at the extremities of the baſe, they went without delay to the deſert of Pambamarca, and completely finiſhed their operations by the firſt of September.

IV. — SIGNAL on the Mountain of Tanlagua.

Having finiſhed their obſervations on the deſert, they came down to the little town of Quenche, in that neighbourhood, in order to proceed from thence to Tanlagua; but the Indians, who were to accompany them, being no ſtrangers to the extreme ſeverity of the weather on that deſert, diſcouraged by their recent ſufferings on Pambamarca, and knowing they ſhould ſtill ſuffer more on Tanlagua, were not to be found; and the loweſt claſs of inhabitants in the town, apprehending that they ſhould be ſent on this painful ſervice, alſo left their habitations and abſconded; ſo that the joint endeavours of the alcalde and prieſt to diſcover them proved ineffectual; and after a delay of two whole days, the curate, with great difficulty, prevailed on the ſacriſtan, and other Indians employed in the ſervice of the church, to accompany them, and take care of the loaded mules as far as the farm-houſe of Tanlagua, where they arrived the 5th of September. The next day they began to aſcend the mountain, which, being very ſteep, took them up a whole day in climbing it. But this being more than the Indians were able to perform, as they carried the field-tents, baggage, and inſtruments, they were obliged to ſtop half way; ſo that thoſe on the top were under a neceſſity of paſſing the night there without any ſhelter; and a hard froſt coming on, they were almoſt periſhed with cold; for they were ſo greatly affected by it, that they had no uſe of their limbs till they returned to a warmer air. After all theſe hardſhips, the gentlemen could not finiſh their obſervations, ſome of the ſignals being wanting, having either been blown down by the winds, or carried away by the Indian herdſmen: ſo that, during the interval, while perſons were employed in erecting others, they returned to Quito, and applied themſelves to examine the diviſions of the quadrants. Theſe operations, being very tedious, employed them till the month of December, when, all the ſignals which were wanting being replaced, they again, on the 20th of December, repaired to their poſt at Tanlagua; and on the 27th finiſhed the obſervations neceſſary to be made at that ſtation.

V. — SIGNAL on the Mountain of Guapulo.

The ſignal of Guapulo being erected on a mountain of no great height, and in the neighbourhood of Quito, their reſidence was not neceſſary; for, by ſetting out from the city at day-break, they could reach the field tent, where the inſtruments were left, early in the morning. Theſe journeys repeated every day, and though every moment of time was improved to the greateſt advantage, it was the 24th of January 1738 before

they finiſhed the obſervations, with that accurate preciſion ſo conſpicuous in all their operations.

VI. — SIGNAL on the Cordillera and Deſert of Guamani.

They were obliged to make two journeys to the mountain of Guamani, the ſignal having been firſt miſplaced, ſo as not to be ſeen from that erected on Corazon; and conſequently there was a neceſſity for removing it. And though, in order to do this, they aſcended the mountain on the 28th of January, they found it neceſſary to return thither on the 7th of February, when they were fortunate enough to finiſh every thing remaining the very next day.

VII. — SIGNAL on the Deſert of Corazon.

This mountain alſo the gentlemen were obliged to viſit twice; the firſt journey was on the 20th of January, and the ſecond on the 12th of March 1738.

VIII. — SIGNAL of Limpie-pongo, on the Deſert of Cotopaxi.

They went up to the deſert of Cotopaxi on the 16th of March, and remained there till the 31ſt; when they obſerved that the ſignal of Guamani was not viſible from thence, and therefore it was neceſſary to erect another in the intermediate ſpace; which being completed on the 9th of Auguſt, they again repaired to the ſignal of Limpie-pongo, on Cotopaxi; where they finiſhed all their operations by the 13th of the ſame month, and left every thing in exact order. In aſcending the mountain in this ſecond journey, the mule on which Don George Juan rode fell down a breach four or five toiſes deep, but providentially without receiving the leaſt hurt.

As they had been obliged to erect another ſignal between thoſe of Guamani and Limpie-pongo, in order to continue the ſeries of triangles; ſo there was alſo a neceſſity for returning to ſome ſtations, to obſerve again the angles which had before been determined. Theſe operations, together with the experiments on the velocity of ſound, and the obſervations at the new ſignal, filled up the interval from the time the operations were ſuſpended on Limpie-pongo, till they returned to finiſh them.

IX. — SIGNAL on the Deſert of Chinchulagua.

The operations of the ſignal of Chinchulagua, erected on the deſert of the ſame name, were completed on the 8th of Auguſt; but a doubt ariſing with regard to one of the angles obſerved, for the greater certainty, they returned to this ſtation, and again examined the angle in queſtion, after they had finiſhed their obſervations at Limpie-pongo.

X. — SIGNAL on the Mountain of Papa-urco.

After verifying the obſervation on Chinchulagua, they removed to the ſignal of Papa-urco, and finiſhed their obſervations in the ſame month of Auguſt. Here they for ſome time ſuſpended their operations, being called to Quito on affairs of importance, relating to the French academicians.

XI. — SIGNAL on the Mountain of Milin.

The affairs which had required M. Godin's preſence at Quito being terminated within the month, they returned, on the 1ſt of September, to make the neceſſary obſervations

tions at the ſignal of Milin, where they continued till the 7th, when they left it, having completely finiſhed their operations.

XII. — Signal on the Deſert of Chulapu.

From Milin they proceeded to the deſert of Chulapu, where they remained till the 18th of September, when they had finiſhed all their obſervations. Till this ſignal, excluſive, each company had obſerved the three angles of all the triangles; both becauſe they differed from one another, and to prove by this preciſion the errors in the diviſions of the quadrants, before obſerved by other methods. But from this ſignal, incluſive, each company obſerved two angles only of the other triangles, as had been agreed on.

XIII. — Signal in Jivicatſu.

In Jivicatſu they remained from the 18th to the 26th of September. This ſtation was one of the moſt agreeable; for, beſides the height on which the ſignal was erected, the temperature of the air, and the cheerful aſpect of the country, the town of Pilaro was in the neighbourhood, ſo that they wanted for nothing.

XIV. XV. — Signals on the Deſerts of Mulmul and Guayama.

Theſe two deſerts are placed together, becauſe their ſummits are united by gentle eminences; on one of which is a cow-houſe, uſed by the Indians when they go in ſearch of their cattle, which feed on the ſides of this mountain. In this cow-houſe Don George Juan, M. Godin, and their attendants, took up their quarters on the 30th of September, and every morning, when the weather was favourable, repaired to the ſignal erected on one or other of the eminences. But the diſtance between the two ſtations being very ſmall, and the obſervations made there requiring to be verified by thoſe of other auxiliary triangles, it was abſolutely neceſſary to determine exactly the ſtations where theſe triangles were to be formed; and to remain there till the diſtances were ſettled, and the obſervations relating to them concluded; which operations, notwithſtanding the greateſt diligence was uſed, employed them till the 20th of October.

Every thing at the two preceding ſtations being finiſhed, they repaired to the village of Riobamba, determining to continue their work without interruption; but meeting with ſome difficulties concerning the moſt advantageous poſition of the ſubſequent triangles, and money beginning to grow ſhort with our whole ſociety, both Spaniards and French, it was thought neceſſary to make uſe of the interval while the proper places for erecting the ſignals were determining, to procure ſupplies. Accordingly, M. Godin and Don George Juan again ſet out from Riobamba for Quito on the 7th of November; but it was the 2d of February following before we had the pleaſure of congratulating them on their return, the former having been ſeized with a fever, which brought him very low, and detained them a conſiderable time at Quito.

XVI. XVII. — Signals on Amula and Siſa-pongo.

The obſervations neceſſary at the ſignal of Amula were finiſhed before the journey to Quito; and from the 2d of February 1739, when they returned to Riobamba, till the 19th, they were employed in thoſe relating to Siſa-pongo.

XVIII.

XVIII. — SIGNAL on the Mountain of Seſgum.

On the mountain of Seſgum they had occaſion to ſtay only from the 20th to the 23d of February. For this ſignal ſtood on the declivity of a mountain, and they vigilantly employed every moment when the other deſerts were free from thoſe clouds in which they are uſually involved.

XIX. — SIGNAL on the Deſert of Senegualap.

The obſervations at the ſignal of Senegualap detained them from the 23d of February to the 13th of March. The length of the time was indeed the moſt diſagreeable part, as otherwiſe they did not place this among the worſt ſtations they had met with during their courſe of obſervations.

XX. — SIGNAL on the Deſert of Chuſay.

From Senegualap they proceeded to the deſert of Chuſay, a ſtation which gave theſe gentlemen no leſs trouble than it had done us. Our company had no concern with the ſtation on this deſert; for according to the alternative eſtabliſhed between the two companies, that of Senegualap was the place to which we were to repair. But after finiſhing the obſervations at Lalanguſo, being uneaſy at the long ſtay of M. Godin and Don George Juan at Quito, to divert our thoughts by ſome laborious employment, we divided our company into two, in order to proſecute the menſuration, till thoſe gentlemen returned. Accordingly, M. Bouguer, at the head of one detachment, went to the ſignal of Senegualap, and M. de la Condamine and myſelf repaired to that of Chuſay. But M. Godin and Don George Juan joining us there, we returned to our proper company, and the operations were continued in the order agreed on.

XXI. — SIGNAL on the Deſert of Sinaſaguan.

This deſert was one of thoſe common to both companies; and that of Don George Juan remained on it till the 29th of May, when the obſervations of both were finiſhed. Thus every member of the two companies equally ſhared in the fatigues of the operations, and in the hardſhips unavoidable in ſuch dreary regions.

XXII. — SIGNAL on the Deſert of Quinoaloma.

The deſert of Quinoaloma, like the former, may be claſſed among the moſt diſagreeable ſtations in the whole ſeries; for though they repaired hither from Sinaſaguan, it was the 31ſt of the ſame month before they could finiſh the obſervations relating to this ſignal.

In their road from Quinoaloma they paſſed through the town of Azogues; where leaving their inſtruments and baggage, they went to Cuenca, to ſurvey the plains of Talqui and Los Bannos, in order to make choice of one of them for meaſuring the baſe; and having pitched on the latter, and conſulted with us relating to the ſignals wanting, they returned to the town of Azogues.

XXIII. — SIGNAL on the Deſert of Yaſuay.

On the 15th of June they proceeded to the deſert of Yaſuay, and continued there till the 11th of July; when, having finiſhed their obſervations, they returned to Cuenca, where they employed themſelves in meaſuring the baſe on the plain of Los

Bannos, and in beginning the aſtronomical obſervations. This they proſecuted with inceſſant diligence till the 10th of December following, when, in order to continue them with the greater preciſion and certainty, a new inſtrument became neceſſary, and for this purpoſe they repaired to Quito.

XXIV. XXV. XXVI. XXVII. — Signals of Namarelte, Guanacauri, Los Bannos, and the Tower of the great Church of Cuenca.

Whilſt they were making the aſtronomical obſervations at Cuenca, they alſo, by unwearied diligence, finiſhed thoſe relating to the geometrical meaſuration at the four ſtations of Namarelte, Guanacauri, Los Bannos, and the tower of the great church of Cuenca. The firſt three ſtations were to connect the baſe (which reached from Guanacauri to Los Bannos) with the ſeries of triangles; and the laſt ſerved for the obſervatory jointly with the baſe. The obſervations at all theſe were completely finiſhed at this time; for though the next year we found it neceſſary to go to Cuenca to repeat the aſtronomical obſervations, yet all the operations relating to the geometrical menſurations were accurately finiſhed at this time.

XXVIII. XXIX. XXX. XXXI. XXXII. — Signals on the Mountains of Guapulo, Pambamarca, Campanario, Cuicocha, and Mira.

In the year 1744, when we returned to the province of Quito, in order to conclude the whole work, having conquered the difficulties which obliged us to intermit the aſtronomical obſervations, as we have already obſerved, Don George Juan added ſix ſtations to the ſeries of triangles, there being a neceſſity for repeating the obſervations of Guapulo and Pambamarca, in order to extend the ſeries of triangles farther to the northward, and of his repairing again to the mountains of Campanario and Cuicocha. Here, and at Pambamarca, he was obliged to remain amidſt all the inconveniences and hardſhips of thoſe dreadful regions, till he had completed the neceſſary obſervations; all which he bore with great magnanimity; but at thoſe of Guapulo and Mira, which ſerved to connect the obſervatory, thoſe inconveniences were avoided; but as the obſervations at the laſt ſtation were jointly performed by both companies, the particulars of them have been already mentioned.

CHAP. IV. — *Deſcription of the City of Quito.*

AS in the preceding deſcriptions of the ſeveral cities and towns, I have not ſwelled the accounts with chronological and hiſtorical remarks, I ſhall obſerve the ſame method with regard to Quito, and only give an accurate account of the preſent ſtate of this country, the manners and cuſtoms of the inhabitants, and the ſituation of the ſeveral places; that ſuch as know them only by name, may avoid thoſe dangerous errors which too often reſult from forming a judgment of things without a thorough knowledge of them. It may not, however, be amiſs to premiſe, that this province was ſubjected to the empire of Peru, by Tupac-Inga-Yupanqui, the eleventh Ynca.

Garcilaſo, in his hiſtory of the Yncas of Peru, the beſt guide we can follow on this ſubject, obſerves, that this conqueſt was made by the army of that emperor, commanded by his eldeſt ſon Hueyna-Capac, who alſo ſucceeded him in the empire. Hueyna-Capac, among other natural children, had one called Ata-Hualpa, by a daughter of the laſt

laſt king of Quito; and being extremely fond of him, on account of his many amiable qualities and accompliſhments, in order to procure him an honourable ſettlement, prevailed on his legitimate and eldeſt ſon Huaſcar to allow him to hold the kingdom of Quito as a fief of the empire; it being an invariable law, that all conqueſts were to be perpetually annexed to the empire, and not alienated from it on any account whatever. Thus Hueyna-Capac enjoyed the ſatisfaction of ſeeing his favourite a ſovereign of large dominions. But on the death of his father, this prince, of whom ſuch great hopes had been conceived, ungratefully rebelled, ſeized on the empire, impriſoned his brother, and ſoon after put him to a violent death. His proſperity was, however, but of ſhort continuance; for he ſuffered the ſame fate by order of Don Franciſco Pizarro, who had ſent Sebaſtian de Belalcazar to make a conqueſt of the kingdom of Quito. He routed the Indians wherever they ventured to face him; and having ſoon, by a ſeries of victories, made himſelf maſter of the kingdom, and in the year 1534, rebuilt the capital, which had ſuffered extremely from inteſtine commotions, called it San Franciſco de Quito, a name it ſtill retains, though it was not till ſeven years after that the title of city was conferred upon it.

We found, from accurate obſervations, that the city of Quito is ſituated in the latitude of 0° 13′ 33″ ſouth, and in 298° 15′ 45″ of longitude from the meridian of Teneriffe. It ſtands in the inland parts of the continent of South America, and on the eaſtern ſkirts of the Weſt Cordillera of the Andes. Its diſtance from the coaſt of the South Sea is about thirty-five leagues weſt. Contiguous to it, on the north-weſt, is the mountain and deſert of Pichincha, not leſs famous among ſtrangers for its great height, than among the natives for the great riches it has been imagined to contain ever ſince the times of idolatry; and this only from a vague and unſupported tradition. The city is built on the acclivity of that mountain, and ſurrounded by others of a middling height, among the breaches, or guaycos, as they are called here, which form the eminences of Pichincha. Some of theſe breaches are of a conſiderable depth, and run quite through it, ſo that great part of the buildings ſtand upon arches. This renders the ſtreets irregular and extremely uneven, ſome being built on the aſcents, deſcents, and ſummits of the breaches. This city, with regard to magnitude, may be compared to one of the ſecond order in Europe; but the unevenneſs of its ſituation is a great diſadvantage to its appearance.

Near it are two ſpacious plains; one on the ſouth called Turu-bamba, three leagues in length; and the other on the north, termed Inna-Quito, about two leagues in extent. Both are interſperſed with ſeats and cultivated lands, which greatly add to the proſpect from the city, being continually covered with a lively verdure, and the neighbouring plains and hills always enamelled with flowers, there being here a perpetual ſpring. This ſcene is beautifully diverſified with large numbers of cattle feeding on the eminences, though the luxuriancy of the ſoil is ſuch, that they cannot conſume all the herbage.

Theſe two plains contract as they approach the city, and, at their junction, form a neck of land, covered with thoſe eminences on which part of Quito ſtands. It may, perhaps, appear ſtrange, that, notwithſtanding two ſuch beautiful and extenſive plains are ſo near the city, a ſituation ſo very inconvenient ſhould be preferred to either. But the firſt founders ſeem to have had leſs regard for convenience and beauty, than for preſerving the remembrance of their conqueſt, by building on the ſite of the ancient capital of the Indians, who made choice of ſuch places for erecting their towns; probably from their being better adapted to defence. Beſides, the Spaniards, during the infancy of their conqueſt, little imagined this place would ever increaſe to its preſent magnitude. Quito, however, was formerly in a much more flouriſhing condition than

at preſent; the number of its inhabitants being conſiderably decreaſed, particularly the Indians, whole ſtreets of whoſe huts are now forſaken, and in ruins.

South-weſt from Quito, on the neck of land belonging to the plain of Turu-bamba, is an eminence called Panecillo, or the Little Loaf, from its figure reſembling a ſugar loaf. Its height is not above a hundred toiſes, and between it and the mountains covering the eaſt part of the city is a very narrow road. From the ſouth and weſt ſides of the Panecillo iſſue ſeveral ſtreams of excellent water; and from the eminences of Pichincha ſeveral brooks flow down the breaches, and, by means of conduits and pipes, plentifully ſupply the whole city with water; whilſt the remainder, joining in one ſtream, forms a river called Machangara, which waſhes the ſouth parts of the city, and is croſſed over by a ſtone bridge.

Pichincha, in the Pagan times, was a volcano, and even ſome fiery eruptions have been known ſince the conqueſt. The mouth, or aperture, was in a pic nearly of the ſame height with that on which we took our ſtation; and the top of it is now covered with ſand and calcined matter. At preſent no fire is ejected, nor does there any ſmoke iſſue from it. But ſometimes the inhabitants are alarmed by dreadful noiſes, cauſed by winds confined in its bowels, which cannot fail of recalling to their minds the terrible deſtruction formerly cauſed by its eructations, when the whole city and neighbouring country were often, as it were, buried under a deluge of aſhes, and the light of the ſun totally intercepted, for three or four days ſucceſſively, by impenetrable clouds of duſt. In the centre of the plain of Inna-Quito is a place called Rumibamba, i. e. a ſtony plain, being full of large fragments of rocks thrown thither by the ejections of the mountain. We have already obſerved, that the higheſt part of Pichincha is covered with ice and ſnow, conſiderable quantities of which are brought down to the city, and mixed with the liquors drunk by people of faſhion.

The principal ſquare in Quito has four ſides, in one of which ſtands the cathedral, and in the oppoſite the epiſcopal palace; the third ſide is taken up by the town-houſe, and the fourth by the palace of the audience. It is very ſpacious, and has in the centre an elegant fountain. It is indeed rather diſfigured than adorned by the palace of the audience; which, inſtead of being kept in repair conformable to the dignity of government, the greateſt part of it has been ſuffered to fall into ruins, and only a few halls and offices taken any care of; ſo that even the outward walls continually threaten to demoliſh the parts now ſtanding. The four ſtreets terminating at the angles of the ſquare are ſtraight, broad, and handſome; but at the diſtance of three or four quadras (or the diſtance between every two corners, or ſtacks of building, and which here conſiſts of about a hundred yards, more or leſs) begin the troubleſome declivities. This inequality deprives the inhabitants of the uſe of coaches, or any other wheel-carriage. Perſons of rank, however, to diſtinguiſh themſelves, are attended by a ſervant carrying a large umbrella: and ladies of the firſt quality are carried in ſedans. Except the four ſtreets above-mentioned, all the reſt are crooked, and deſtitute both of ſymmetry and order. Some of them are croſſed by breaches, and the houſes ſtand on the ſides of their winding courſe and irregular projections. Thus ſome parts of the city are ſituated at the bottom of thoſe breaches, while others ſtand on their ſummits. The principal ſtreets are paved; but thoſe which are not, are almoſt impaſſable after rain, which is here very common.

Beſides the principal ſquare, there are two others very ſpacious, together with ſeveral that are ſmaller. In theſe the greateſt part of the convents are ſituated, and make a handſome appearance; the fronts and portals being adorned with all the embelliſhments of architecture, particularly the convent of the order of Franciſcans, which, being wholly of free-ſtone, muſt have coſt a prodigious ſum; and indeed the juſtneſs of the proportions,

proportions, the diſpoſition of the parts, the elegant taſte and execution of the work, render it equal to moſt of the admired buildings in Europe.

The principal houſes are large; ſome of them have ſpacious and well-contrived apartments, though none are above one ſtory in height, which is ſeldom without a balcony toward the ſtreet; but their doors and windows, particularly thoſe within, are very low and narrow, following in theſe particulars the old cuſtom of the Indians, who conſtantly built their houſes among breaches and inequalities, and were alſo careful to make the doors very narrow. The Spaniards plead in defence of this cuſtom, that the apartments are freer from wind; but be that as it may, I am inclined to think that this peculiarity owed its origin to a blind imitation of the Indians.

The materials made uſe of in building at Quito are adobes, or unburnt bricks, and clay; and to the making of the former the earth is ſo well adapted, that they laſt a long time, provided they are defended from the rain. They are cemented or joined together by a certain ſubſtance called ſangagua, a ſpecies of mortar of uncommon hardneſs, uſed by the ancient Indians for building houſes and walls of all kinds, ſeveral remains being ſtill to be ſeen near the city, and in many other parts of the kingdom, notwithſtanding the remarkable inclemency of the weather; a ſufficient proof of its ſtrength and duration.

The city is divided into ſeven pariſhes, the Sagrario, St. Sebaſtian, St. Barbaria, St. Roque, St. Mark, St. Priſca, and St. Blaize. The cathedral, beſides the richneſs of its furniture, is ſplendidly adorned with tapeſtry hangings and other coſtly decorations; but in this reſpect the other pariſh-churches are ſo mean as to have ſcarce neceſſaries for performing divine worſhip. Some of them are without pavement, and with every other mark of poverty. The chapel del Sagrario is very large, wholly of ſtone, and its architecture executed in an elegant taſte; nor is the diſpoſition of the inſide inferior to the beauty of its external appearance.

The convents of monks in Quito are thoſe of the Auguſtines, Dominicans, and the Fathers of Mercy, which are the heads of provinces; but beſides theſe, there is another of Franciſcan Recollects, another of Dominicans, and another of the Fathers of Mercy. In this city is alſo a college of Jeſuits; two colleges for ſeculars, one called St. Lewis, of which the Jeſuits have the direction; and the other St. Ferdinand, and is under the care of the Dominicans. In the firſt are twelve royal exhibitions for the ſons of auditors and other officers of the crown. It has alſo an univerſity under the patronage of St. Gregory. That of the ſecond is a royal foundation, and dedicated to St. Thomas; the ſalaries of the profeſſors are paid by the crown. Some of the chairs in this college are filled by graduates, as thoſe appropriated to the canon and civil law, and phyſic; but the latter has been long vacant for want of a profeſſor, though the degrees would be diſpenſed with. The Franciſcan convent has a college, called San Buena Ventura, for the religious of its order; and, though under the ſame roof with the convent, has a different government and economy.

Quito has alſo ſeveral nunneries, as that of the Conception, the orders of St. Clare, St. Catharine, and two of bare-footed Thereſians. Of theſe one was originally founded in the town of Latacunga; but having, together with the place itſelf, been deſtroyed by an earthquake, the nuns removed to Quito, where they have ever ſince continued.

The college of Jeſuits, as well as all the convents of monks, are very large, well built, and very ſplendid. The churches alſo, though the architecture of ſome is not modern, are ſpacious, and magnificently decorated, eſpecially on ſolemn feſtivals, when it is amazing to behold the vaſt quantities of wrought plate, rich hangings, and coſtly ornaments, which heighten the ſolemnity of worſhip, and increaſe the reputation of theſe churches for magnificence. If thoſe of the nunneries do not, on thoſe occaſions, exhibit

ſuch an amazing quantity of riches, they exceed them in elegance and delicacy. It is quite otherwiſe in the pariſh-churches, where poverty is conſpicuous, even on the moſt ſolemn occaſions; though this is partly imputed to thoſe who have the care of them.

Here is alſo an hoſpital, with ſeparate wards for men and women; and though its revenues are not large, yet by a proper economy they are made to anſwer all the neceſſary expences. It was formerly under the direction of particular perſons of the city, who, to the great detriment of the poor, neglected their duty, and ſome even embezzled part of the money received: but it is now under the care of the order of our Lady of Bethlehem, and by the attention of theſe fathers, every thing has put on a different aſpect, the whole convent and infirmary having been rebuilt, and a church erected, which, though ſmall, is very beautiful and finely decorated.

This order of our Lady of Bethlehem has been lately founded under the name of a congregation, and had its origin in the province of Guatemala. The name of the founder was Pedro de San Joſeph Betaneur, a native of the town of Chaſna (or Villa Fuerte) on the iſland of Teneriffe, in the year 1626. After his death, which happened in the year 1667, his congregation was approved of by a bull of Clement X. dated the 16th of May 1672, and ſtill more formally in another of 1674. In 1687, Innocent XI. erected it into a community of regulars, ſince when it has begun to increaſe in theſe countries as a religious order. It had indeed before paſſed from Guatemala to Mexico, and from thence, in the year 1671, to Lima, where the fathers had the care of the hoſpital del Carmen. In the city of St. Miguel de Piura, they took poſſeſſion of the hoſpital of St. Ann in the year 1678, and that of St. Sebaſtian in Truxillo in 1680; and their probity and diligence in diſcharging theſe truſts induced other places to ſelect them as directors of their hoſpitals, and among the reſt the city of Quito; where, notwithſtanding they have been only a few years, they have repaired all former abuſes, and put the hoſpital on a better footing than it had ever known before.

The fathers of this order go bare-footed, and wear a habit of a dark-brown colour, nearly reſembling that of the Capuchins, which order they alſo imitate in not ſhaving their beards. On one ſide of their cloak is an image of our Lady of Bethlehem. Every ſixth year they meet to chooſe a general, which ceremony is performed alternately at Mexico and Lima.

Among the courts, whoſe ſeſſions are held at Quito, the principal is that of the Royal Audience, which was eſtabliſhed there in the year 1563, and conſiſts of a preſident (who is alſo governor of the province with regard to matters of law), four auditors, who are at the ſame time civil and criminal judges, and a royal fiſcal, ſo called, as, beſides the cauſes brought before the Audience, he alſo takes cognizance of every thing relating to the revenue of the crown. Beſides this, there is alſo another fiſcal, called Protector de los Indios (Protector of the Indians), who ſolicits for them, and when injured pleads in their defence. The juriſdiction of this court extends to the utmoſt limits of the province, with no other appeal than to the Council of the Indies, and this only in caſe of a rejection of a petition, or flagrant injuſtice.

The next is the Exchequer, or chamber of finances, the chief officers of which are an accomptant, a treaſurer, and a royal fiſcal. The revenues paid into the receipt of this court are, the tributes of the Indians of this juriſdiction and thoſe of Otabalo, Villa de San Miguel de Ibara, Latacunga, Chimbo, and Riobamba; as alſo the taxes levied in thoſe parts, and the produce of the cuſtoms at Babahoyo, Yaquache, and Caracol: which ſums are annually diſtributed, partly to Carthagena and Santa Martha, for paying the ſalaries of the preſidents, fiſcals, corregidors, together with the ſtipends of the

prieſts,

prieſts, and the governors of Maynas and Quijos; partly for the officers of the Commandries, and partly for the caciques of the villages.

The Tribunal de Cruzada, or Croiſade, has a commiſſary, who is generally ſome dignitary of the church; and a treaſurer, who is alſo the accomptant, through whoſe hands every thing paſſes relating to the Croiſade.

Here is alſo a treaſury for the effects of perſons deceaſed; an inſtitution long ſince eſtabliſhed all over the Indies, for receiving the goods of thoſe whoſe lawful heirs were in Spain, that thus they might be ſecured from thoſe accidents to which, from diſhoneſty or negligence, they would be liable in private hands, and ſecurely kept for the perſons to which they belong: an inſtitution originally very excellent, but now greatly abuſed, great defalcations being made in the eſtates before they are reſtored to their proper owners.

Beſides theſe tribunals, here is a commiſſary of the inquiſition, with an alguazil major, and familiars appointed by the holy office at Lima.

The Corporation conſiſts of a corregidor, two ordinary alcaldes choſen annually, and regidores. Theſe ſuperintend the election of the alcaldes, which is attended with no ſmall diſturbance in this city, perſons of all ranks being divided into the two parties of Creoles, and Europeans or Chapitones, to the great detriment of private repoſe and ſociability. This aſſembly alſo nominates the alcalde major of the Indians, who muſt be a governor of one of the Indian towns within five leagues of the city, and has under him other inferior alcaldes, for the civil government of it; and this alcalde major, together with the others, are little more than the alguazils, or officers of the corregidor or ordinary alcaldes of the city, though at firſt they were inveſted with much greater power. Beſides theſe, here are others called alcaldes de harrieros, whoſe buſineſs it is to provide mules, &c. for travellers; and though all theſe are ſubordinate to the alcalde major, yet he has very little authority over them.

The cathedral chapter conſiſts of the biſhop, dean, archdeacon, chanter, treaſurer, a doctoral, a penitentiary, a magiſtral, three canons by preſentation, four prebends, and two demi-prebends, with the following revenues. That of the biſhop 24,000 dollars; the dean 2,500; the four ſucceeding dignities 2,000 each; the canons 1,500 each; the prebends 600, and the demi-prebends 420. This church was erected into a cathedral in the year 1545, and, among other feſtivals, are celebrated in it, with amazing magnificence, thoſe of Corpus Chriſti, and the Conception of our Lady, when all the courts, offices, and perſons of eminence, never fail to aſſiſt. But the ſingular pomp of the proceſſion of the hoſt in the former, and the dances of the Indians, muſt not be omitted. Every houſe of the ſtreets through which it paſſes are adorned with rich hangings; and ſuperb triumphal arches are erected, with altars at ſtated diſtances, and higher than the houſes, on which, as on the triumphal arches, the ſpectator ſees with admiration immenſe quantities of wrought plate, and jewels, diſpoſed in ſuch an elegant manner as to render the whole even more pleaſing than the aſtoniſhing quantity of riches. This ſplendor, together with the magnificent dreſſes of the perſons who aſſiſt at the proceſſion, render the whole extremely ſolemn, and the pomp and decorum are both continued to the end of the ceremony.

With regard to the dances, it is a cuſtom, both among the pariſhes of Quito and all thoſe of the mountains, for the prieſt; a month before the celebration of the feaſts, to ſelect a number of Indians who are to be the dancers. Theſe immediately begin to practiſe the dances they uſed before their converſion to chriſtianity. The muſic is a pipe and tabor, and the moſt extraordinary of their motions ſome awkward capers; in ſhort, the whole is little to the taſte of an European. Within a few days of the ſolem-

nity, they dreſs themſelves in a doublet, a ſhirt, and a woman's petticoat, adorned in the fineſt manner poſſible. Over their ſtockings they wear a kind of pinked buſkins, on which are faſtened a great number of bells. Their head and face they cover with a kind of maſk, formed of ribbands of ſeveral colours. Dreſſed in this fantaſtical garb, they proudly call themſelves angels, unite in companies of eight or ten, and ſpend the whole day in roving about the ſtreets, highly delighted with the jingling of their bells; and frequently ſtop and dance, to gain the applauſes of the ignorant multitude, who are ſtrangers to elegant dancing. But what is really ſurpriſing, is, that without any pay, or view of intereſt, unleſs they think it a religious duty, they continue this exerciſe a whole fortnight before the grand feſtival, and a month after it, without minding either their labour or their families; rambling about, and dancing the whole day, without being either tired or diſguſted, though the number of their admirers daily decreaſe, and the applauſe is turned into ridicule.

The ſame dreſs is worn by them in other proceſſions, and at the bull-feaſts, when they are excuſed from labour, and therefore highly pleaſed with them.

The corporation and cathedral chapter keep, by vow, two annual feſtivals in honour of two images of the Virgin, which are placed in the villages of Guapulo and Quinche, belonging to this juriſdiction. They are brought with great ſolemnity to Quito, where a feſtival is celebrated, with great magnificence and rejoicing, and is ſucceeded by nine days' devotion, the Audience and other courts aſſiſting at the feſtival. The ſtatues are afterwards returned with the ſame ſolemnity to their reſpective churches, the firſt of which is one league from Quito, and the other ſix. Theſe feſtivals are held in commemoration of the mercy and aſſiſtance vouchſafed by the Holy Virgin at the time of an earthquake and terrible ejections from Pichincha, by which Latacunga, Hambato, and a great part of Riobamba, were utterly deſtroyed; while the prayers offered up at Quito to the holy Virgin, induced her to interpoſe in ſo ſingular a manner, that not the leaſt misfortune attended this city, though apparently in equal danger with thoſe which ſuffered.

CHAP. V. — *Of the Inhabitants of Quito.*

THIS city is very populous, and has, among its inhabitants, ſome families of high rank and diſtinction; though their number is but ſmall conſidering its extent, the poorer claſs bearing here too great a proportion. The former are the deſcendants either of the original conquerors, or of preſidents, auditors, or other perſons of character, who at different times came over from Spain inveſted with ſome lucrative poſt, and have ſtill preſerved their luſtre, both of wealth and deſcent, by intermarriages, without intermixing with meaner families though famous for their riches.

The commonalty may be divided into four claſſes; Spaniards or Whites, Meſtizos, Indians or Natives, and Negroes, with their progeny. Theſe laſt are not proportionally ſo numerous as in the other parts of the Indies; occaſioned by its being ſomething inconvenient to bring Negroes to Quito, and the different kinds of agriculture being generally performed by Indians.

The name of Spaniard here has a different meaning from that of Chapitone or European, as properly ſignifying a perſon deſcended from a Spaniard without a mixture of blood. Many Meſtizos, from the advantage of a freſh complexion, appear to be Spaniards more than thoſe who are ſo in reality; and from only this fortuitous advantage are

accounted as ſuch. The Whites, according to this conſtruction of the word, may be conſidered as one-ſixth part of the inhabitants.

The Meſtizos are the deſcendants of Spaniards and Indians, and are to be conſidered here in the ſame different degrees between the Negroes and Whites, as before at Carthagena; but with this difference, that at Quito the degrees of Meſtizos are not carried ſo far back; for, even in the ſecond or third generations, when they acquire the European colour, they are conſidered as Spaniards. The complexion of the Meſtizos is ſwarthy and reddiſh, but not of that red common in the fair Mulattos. This is the firſt degree, or the immediate iſſue of a Spaniard and Indian. Some are, however, equally tawny with the Indians themſelves, though they are diſtinguiſhed from them by their beards: while others on the contrary, have ſo fine a complexion that they might paſs for Whites, were it not for ſome ſigns that betray them, when viewed attentively. Among theſe, the moſt remarkable is the lowneſs of the forehead, which often leaves but a ſmall ſpace between their hair and eye-brows; at the ſame time the hair grows remarkably forward on the temples, extending to the lower part of the ear. Beſides, the hair itſelf is harſh, lank, coarſe, and very black; their noſe very ſmall, thin, and has a little riſing on the middle, from whence it forms a ſmall curve, terminating in a point, bending towards the upper lip. Theſe marks, beſides ſome dark ſpots on the body, are ſo conſtant and invariable, as to make it very difficult to conceal the fallacy of their complexion. The Meſtizos may be reckoned a third part of the inhabitants.

The next claſs is the Indians, who form about another third; and the others, who are about one-ſixth, are the Caſts. Theſe four claſſes, according to the moſt authentic accounts taken from the pariſh regiſter, amount to between 50 and 60,000 perſons, of all ages, ſexes, and ranks. If among theſe claſſes the Spaniards, as is natural to think, are the moſt eminent for riches, rank, and power, it muſt at the ſame time be owned, however melancholy the truth may appear, they are in proportion the moſt poor, miſerable and diſtreſſed; for they refuſe to apply themſelves to any mechanical buſineſs, conſidering it as a diſgrace to that quality they ſo highly value themſelves upon, which conſiſts in not being black, brown, or of a copper-colour. The Meſtizos, whoſe pride is regulated by prudence, readily apply themſelves to arts and trades, but chuſe thoſe of the greateſt repute, as painting, ſculpture, and the like, leaving the meaner ſort to the Indians. They are obſerved to excel in all, particularly painting and ſculpture; in the former a Meſtizo, called Miguel de Santiago, acquired great reputation, ſome of his works being ſtill preſerved and highly valued, while others were carried even to Rome, where they were honoured with the unanimous applauſes of the virtuoſi. They are remarkably ready and excellent at imitation, copying being indeed beſt adapted to their phlegmatic genius. And what renders their exquiſite performances ſtill more admirable, is, that they are deſtitute of many of the inſtruments and tools requiſite to perform them with any tolerable degree of accuracy. But, with theſe talents, they are ſo exceſſively indolent and ſlothful, that, inſtead of working, they often loiter about the ſtreets during the whole day. The Indians, who are generally ſhoemakers, bricklayers, weavers, and the like, are not more induſtrious. Of theſe the moſt active and tractable are the barbers and phlebotomiſts, who in their reſpective callings, are equal to the moſt expert hands in Europe. The ſhoemakers, on the other hand, diſtinguiſh themſelves by ſuch ſupineneſs and ſloth, that very often you have no other way left to obtain the ſhoes you have beſpoke, than to procure materials, ſeize on the Indian, and lock him up till they are finiſhed. This is indeed partly owing to a wrong cuſtom of paying for the work before it is done; and when the Indian has once

once got the money, he ſpends it all in chicha *, ſo that while it laſts he is never ſober; and it is natural to think that it will not be eaſy afterwards to prevail on him to work for what he has ſpent.

The dreſs here differs from that uſed in Spain, but leſs ſo with the men than of the women. The former, who wear a black cloak, have under it a long coat, reaching down to their knees, with a cloſe ſleeve, open at the ſides, without folds; and along the ſeams of the body, as well as thoſe of the ſleeves, are button-holes, and two rows of buttons, for ornament. In every other particular, people of fortune affect great magnificence in their dreſs, wearing very commonly the fineſt gold and ſilver tiſſues.

The Meſtizos in general wear blue cloth, manufactured in this country. And though the loweſt claſs of Spaniards are very ambitious of diſtinguiſhing themſelves from them, either by the colour or faſhion of the clothes, little difference is to be obſerved.

The moſt ſingular dreſs, with regard to its meanneſs, is that of the Indians, which conſiſts only of white cotton drawers, made either from the ſtuffs of the country, or from others brought from Europe. They come down to the calf of the leg, where they hang looſe, and are edged with a lace ſuitable to the ſtuff. The uſe of a ſhirt is ſupplied by a black cotton frock, wove by the natives. It is made in the form of a ſack, with three openings at the bottom, one in the middle for the head, and the others at the corners for the arms, and thus cover their naked bodies down to the knees. Over this is a capiſayo, a kind of ſerge cloak, having a hole in the middle for putting the head through, and a hat made by the natives. This is their general dreſs, and which they never lay aſide, not even while they ſleep. And uſe has ſo inured them to the weather, that without any additional clothing or covering for their legs or feet, they travel in the coldeſt parts with the ſame readineſs as in the warmeſt.

The Indians who have acquired ſome fortune, particularly the barbers and phlebotomiſts, are very careful to diſtinguiſh themſelves from their countrymen, both by the fineneſs of their drawers, and alſo by wearing a ſhirt, though without ſleeves. Round the neck of the ſhirt they wear a lace four or five fingers in breadth, hanging entirely round like a kind of ruff or band. One favourite piece of finery is ſilver or gold buckles for their ſhoes; but they wear no ſtockings or other coverings on their legs. Inſtead of the mean capiſayo, they wear a cloak of fine cloth, and often adorned with gold or ſilver lace.

The dreſs of the ladies of the firſt rank conſiſts of a petticoat already deſcribed in our account of Guayaquil. On the upper parts of their body they wear a ſhift, on that a looſe jacket laced, and over all a kind of bays, but made into no form, being worn juſt as cut from the piece. Every part of their dreſs is, as it were, covered with lace; and thoſe which they wear on days of ceremony are always of the richeſt ſtuffs, with a profuſion of ornaments. Their hair is generally made up in treſſes, which they form into a kind of croſs, on the nape of the neck; tying a rich ribband, called balaca, twice round their heads, and with the ends form a kind of roſe at their temples. Theſe roſes are elegantly intermixed with diamonds and flowers. When they go to church, they ſometimes wear a full petticoat; but the moſt uſual dreſs on theſe occaſions is the veil.

The Meſtizo women affect to dreſs in the ſame manner as the Spaniſh, though they cannot equal them in the richneſs of their ſtuffs. The meaner ſort go barefooted. Two kinds of dreſſes are worn by the Indian women; but both of them made in the ſame plain manner with thoſe worn by the men: the whole conſiſting of a ſhort petticoat, and a veil of American bays. The dreſs of the loweſt claſs of Indian women is in effect

* A kind of beer or ale made of maize, and very intoxicating.

only

only a bag of the ſame make and ſtuff as the frocks of the men, and called Anaco. This they faſten on the ſhoulders with two large pins, called Tupu or Topo. The only particular in which it differs from the frock is, that it is ſomething longer, reaching down to the calf of the leg, and faſtened round the waiſt with a kind of girdle. Inſtead of a veil, they wear about their neck a piece of the ſame coarſe ſtuff dyed black, and called Lliella; but their arms and legs are wholly naked. Such is the habit with which the lower claſs of Indian women are contented.

The caciqueſſes, or Indian women, who are married to the alcaldes majors, governors, and others, are careful to diſtinguiſh themſelves from the common people by their habits, which is a mixture of the two former, being a petticoat of bays adorned with ribbands; over this, inſtead of the anaco, they wear a kind of black manteau, called Aſco. It is wholly open on one ſide, plaited from top to bottom, and generally faſtened round the waiſt with a girdle. Inſtead of the ſcanty lliella which the common Indian women wear hanging from their ſhoulders, theſe appear in one much fuller, and all over plaited, hanging down from the back part of their head almoſt to the bottom of the petticoat. This they faſten before with a large ſilver bodkin, called alſo Tupu, like thoſe uſed in the anaco. Their head-dreſs is a piece of fine linen curiouſly plaited, and the end hanging down behind: this they call Colla, and is worn both for diſtinction and ornament, and to preſerve them from the heat of the ſun; and thoſe ladies, that their ſuperiority may not be called in queſtion, never appear abroad without ſhoes. This dreſs, together with that univerſally worn by Indians, men and women, is the ſame with that uſed in the time of the Yncas, for the propriety of diſtinguiſhing the ſeveral claſſes. The Caciques at preſent uſe no other than that of the more wealthy Meſtizos, namely, the cloak and hat; but the ſhoes are what chiefly diſtinguiſh them from the common Indians.

The men, both Creoles and Spaniards, are well made, of a proper ſtature, and of a lively and agreeable countenance. The Meſtizos in general are alſo well made, often taller than the ordinary ſize, very robuſt, and have an agreeable air. The Indians, both men and women, are generally low, but well proportioned, and very ſtrong; though more natural defects are to be obſerved among them than in the other claſſes of the human ſpecies: ſome are remarkably ſhort, ſome ideots, dumb and blind, and others deficient in ſome of their limbs. Their hair is generally thick and long, which they wear looſe on their ſhoulders, never tying or tucking it up, even when they go to ſleep. But the Indian women plait theirs behind with ribband, and the part before they cut a little above the eye-brows from one ear to another; which form of hair they call Urcu, and are ſo fond of this natural ornament, that the greateſt affront poſſible to be offered to an Indian of either ſex, is to cut off their hair; for whatever corporal puniſhment their maſters think proper to inflict on them, they bear with a dutiful tranquillity; but this is a diſgrace they never forgive; and accordingly it was found neceſſary for the government to interpoſe, and limit this puniſhment to the moſt enormous crimes. The colour of their hair is generally a deep black; it is lank, harſh, and coarſe as that of horſes. The Meſtizos, on the other hand, by way of diſtinguiſhing themſelves from the Indians, cut off their hair; but the women do not in this reſpect follow the example of their huſbands. The Indians have no beard; and the greateſt alteration occaſioned by their arriving at the years of maturity, is only a few ſtraggling hairs on the chin, but ſo ſhort and thin as never to require the aſſiſtance of the razor; nor have either males or females any indications of the age of puberty.

The youths of family are here inſtructed in philoſophy and divinity, and ſome proceed to the ſtudy of the civil law, but follow that profeſſion with reluctance. In theſe

ſciences they demonſtrate a great deal of judgment and vivacity, but are very deficient in hiſtorical and political knowledge, as well as other ſciences, which improve the human underſtanding, and carry it to a certain degree of perfection not otherwiſe attainable. This is, however, their misfortune, not their fault; being owing to the want of proper perſons to inſtruct them; for with regard to thoſe who viſit this country on commercial affairs, their minds have generally another turn, and their whole time is devoted to acquire riches. Thus after ſeven or eight years of ſcholaſtic inſtruction, their knowledge is very limited; though endowed with geniuſes capable of making the greateſt progreſs in the ſciences.

In the women of rank here, their beauty is blended with a graceful carriage and an amiable temper; qualities indeed common to the whole ſex in this part of America. Their children are always educated under their own eyes, though little to their advantage, their extreme fondneſs preventing them from ſeeing thoſe vices which ſo often bring youth to ruin and infamy; nor is it uncommon for them to endeavour to hide the vices of the ſon from the knowledge of the father; and in caſe of detection, to interpoſe paſſionately in defence of their favourite, in order to prevent his being properly corrected.

This country is obſerved to abound more in women than men; a circumſtance the more remarkable, as thoſe cauſes which in Europe induce men to leave their country, namely, travelling, commerce, and war, can hardly be ſaid to ſubſiſt here. Numbers of families may be found in this country, that have a great variety of daughters, but not one ſon among them. Nature alſo in the male ſex, eſpecially thoſe who have been tenderly brought up, begins to decay at the age of thirty; whereas the females rather enjoy a more confirmed ſtate of health and vigour. The cauſe of this may, in a great meaſure, be owing to the climate; food may alſo contribute to it; but the principal cauſe, I make no doubt, is their early intemperance and voluptuouſneſs; this debilitates the ſtomach, ſo that the organs of digeſtion cannot perform their proper office; and accordingly many conſtantly eject their victuals an hour or two after their meals. Whether this be owing to a cuſtom now become natural, or forced, the day they fail of ſuch ejection, they are ſure to find themſelves indiſpoſed. But amidſt all their weakneſſes and indiſpoſitions they live the general time, and many even arrive at a very advanced age.

The only employment of perſons of rank, who are not eccleſiaſtics, is from time to time to viſit their eſtates or chacaras, where they reſide during the time of harveſt; but very few of them ever apply themſelves to commerce, indolently permitting that lucrative branch to be poſſeſſed entirely by the Chapitones or Europeans, who travel about the country, and purſue their intereſt with great aſſiduity. Within the city, however, ſome few Creoles and Meſtizos ſo far overcome their indolent diſpoſitions as to keep ſhops.

The want of proper employments, together with the ſloth ſo natural to the inhabitants of this country, and the great neglect of education in the common people, are the natural parents of that fondneſs ſo remarkable in theſe parts for balls and entertainments; and theſe at Quito are both very frequent, and carried to ſuch a degree of licentiouſneſs and audacity, as cannot be thought of without deteſtation; not to mention the many tumults and quarrels which thence derive their origin. But ſuch brutality may be conſidered as the natural conſequence of the rum and chicha, which on theſe occaſions are drunk in enormous quantities. It muſt, however, be remembered, that no perſon of any rank or character is even ſeen at theſe meetings, their feſtivity being conducted with the ſtricteſt decency and decorum.

Rum

Rum is commonly drunk here by perſons of all ranks, though very moderately by thoſe of faſhion; particularly at entertainments, when it is made into a kind of cordial. They prefer it to wine, which they ſay diſagrees with them. The Chapitones alſo accuſtom themſelves to this liquor; wine, which is brought from Lima, being very ſcarce and dear. Their favourite liquor is brandy, brought alſo from Lima, and is leſs inflammative than rum. The diſorders ariſing from the exceſſive uſe of ſpirituous liquors are chiefly ſeen among the Meſtizos, who are continually drinking while they are maſters of any money. The lower claſs of women, among the Creoles and Meſtizos, are alſo addicted to the ſame ſpecies of debauchery, and drink exceſſively.

Another common liquor in this country is the mate, which anſwers to tea in the Eaſt Indies, though the method of preparing and drinking it is ſomething different. It is made from an herb, which, in all theſe parts of America is known by the name of Paraguay, as being the produce of that country. Some of it is put into a calabaſh tipped with ſilver, called here Mate or Totumo, with a ſufficient quantity of ſugar, and ſome cold water, to macerate it. After it has continued in this manner ſome time, the calabaſh is filled with boiling water, and the herb being reduced to a powder, they drink the liquor through a pipe fixed in the calabaſh, and having a ſtrainer before the end of it. In this manner the calabaſh is filled ſeveral times with water and freſh ſupplies of ſugar, till the herb ſubſides to the bottom, a ſufficient indication that a freſh quantity is wanting. It is alſo uſual to ſqueeze into the liquor a few drops of the juice of lemons or Seville oranges, mixed with ſome perfumes from odoriferous flowers. This is their uſual drink in the morning faſting, and many uſe it alſo as their evening regale. I have nothing to object againſt the ſalubrity and uſe of this liquor; but the manner of drinking it is certainly very indelicate, the whole company drinking ſucceſſively through the ſame pipe. Thus the mate is carried ſeveral times round the company, till all are ſatisfied. The Chapitones make very little uſe of it; but among the Creoles it is the higheſt enjoyment; ſo that even when they travel, they never fail to carry with them a ſufficient quantity of it. This may indeed be owing in ſome meaſure to the diſpatch and facility with which it is prepared; but till they have taken their doſe of mate, they never eat.

There is no vice to which idleneſs is not a preliminary; nor is ſloth ever unaccompanied with ſome vice or other. What muſt then be the ſtate of morality in a country where the greateſt part of the people have no work, employment, or calling, to occupy their thoughts; nor any idea of intellectual entertainment? The prevalence of drunkenneſs has been already mentioned, and the deſtructive vice of gaming is equally common. But in the latter, perſons of rank and opulence, whoſe example is always followed, have led the way; and their inferiors have univerſally followed in their deſtructive paths, to the ruin of families, and the breach of conjugal affection; ſome loſing their ſtocks in trade, others the very clothes from their backs, and afterwards thoſe belonging to their wives, riſking the latter to recover their own. This propenſity in the Indians for gaming has by ſome been imputed to cauſes, in which I can perceive no manner of relation. To me it plainly appears owing to the leiſure of ſome, who know not how to ſpend their time, and to the natural ſloth and idleneſs of others.

The common people and Indians are greatly addicted to theft, in which it muſt be owned they are very artful and dextrous. The domeſtics alſo, cannot be ſaid to be entirely free from this fault, which is attended with the inconvenience of reſerve and ſuſpicion on the part of their maſter. The Meſtizos do not want for audacity in any kind of theft or robbery, though in themſelves arrant cowards. Thus, even at an unſeaſonable hour, they will not venture to attack any one in the ſtreet; but their

common practice is, to ſnatch off the perſon's hat, and immediately ſeek their ſafety in their flight; ſo that, before the perſon robbed can recover himſelf, the thief is out of ſight. However trifling this may ſeem, yet ſometimes the capture is very conſiderable; the hats generally worn by perſons of any rank, and even by the wealthy citizens when dreſſed in their cloaks, are of white beaver, and of themſelves worth fifteen or twenty dollars, or more, of the Quito currency, beſides a hatband of gold or ſilver-lace, faſtened with a gold buckle ſet with diamonds or emeralds. It is very rare that any ſuch thing as a robbery on the highway is heard of; and even theſe may be rather accounted houſebreaking, as they are either committed by the carriers themſelves or their ſervants. In order to execute their moſt remarkable pieces of villany within the city, they ſet fire, during the darkneſs of the night, to the doors of ſuch ſhops or warehouſes, where they flatter themſelves with the hopes of finding ſome ſpecie; and having made a hole ſufficiently large for a man to creep through, one of them enters the houſe, while the others ſtand before the hole to conceal their accomplice, and to receive what he hands out to them. In order to prevent ſuch practices, the principal traders are at the expence of keeping a guard, which patroles all night through the ſtreets where attempts of this kind are moſt to be apprehended; and thus the ſhops are ſecured; for, in caſe any houſe or ſhop is broke open, the commander of the guard is obliged to make good the damage received.

Neither the Indians, Meſtizos, nor any of the loweſt claſs of people, think the taking any eatables a robbery; and the Indians have a particular rule of conduct in their operations, namely, if one of them happens to be in a room where there are ſeveral veſſels of ſilver, or other valuable effects, he advances ſlowly, and with the utmoſt circumſpection, and uſually takes only one piece, and that the leaſt valuable, imagining that it will not be ſo ſoon miſſed as if he had taken one of greater price. If detected in the fact, he reſolutely denies it, with a yanga, a very expreſſive word in his language, and now often uſed by the Spaniards of this country, ſignifying that it was done without any neceſſity, without any profit, without any bad intention. It is indeed a word of ſuch extent in diſculpating, that there is no crime to which it is not applicable with regard to the acquittal of the delinquent. If he has not been ſeen in the very fact, be the circumſtances ever ſo plain againſt him, the theft can never be aſcertained, no Indian having ever been known to confeſs.

In Quito, and in all the towns and villages of its province, different dialects are ſpoken, Spaniſh being no leſs common than the Inga. The Creoles, in particular, uſe the latter equally with the former; but both are conſiderably adulterated with borrowed words and expreſſions. The firſt language generally ſpoken by children is the Inga; the nurſes being Indians, many of whom do not underſtand a word of Spaniſh. Thus, the children being firſt uſed to the Indian pronunciation, the impreſſion is ſo ſtrong on their minds, that few can be taught to ſpeak the Spaniſh language before they are five or ſix years old; and the corruption adheres ſo ſtrongly to them, that they ſpeak a jargon compoſed of both; an impropriety which alſo gains ground among the Europeans, and even perſons of rank, when once they begin to underſtand the language of the country. But what is ſtill more inconvenient, they uſe improper words; ſo that a Spaniard himſelf, not accuſtomed to their dialect, has often need of an interpreter.

The ſumptuous manner of performing the laſt offices to the dead, mentioned in the deſcription of Carthagena, is frugal and ſimple, if compared to that uſed at Quito and all its juriſdiction. Their oſtentation is ſo enormous in this particular, that many families of credit are ruined by a prepoſterous emulation of excelling others. The inhabitants may therefore be properly ſaid to toil, ſcheme, and endure the greateſt labour and

fatigue,

fatigue, merely to enable their ſucceſſors to bury them in a pompous manner. The deceaſed muſt have died in very mean circumſtances indeed, if all the religious communities, together with the chapter of the cathedral, are not invited to his funeral, and during the proceſſion the bells tolled in all the churches. After the body is committed to the earth, the obſequies are performed in the ſame expenſive manner, beſides the anniverſary which is ſolemnized at the end of the year. Another remarkable inſtance of their vanity is, never to bury in their own pariſh church; ſo that any one ſeen to be buried in that manner may be concluded to have been of the loweſt claſs, and to have died wretchedly poor. The cuſtom of making an offering either at the obſequies or anniverſary, is ſtill obſerved, and generally conſiſts of wine, bread, beaſts, or fowls, according to the ability or inclination of the ſurvivor.

Though Quito cannot be compared to the other cities in theſe parts for riches, yet it is far removed from poverty. It appears from ſeveral particulars, to have been in a much more flouriſhing ſtate; but at preſent, though it has many ſubſtantial inhabitants, yet few of them are of diſtinguiſhed wealth, which, in general, conſiſts in landed eſtates, applied to ſeveral uſes, as I ſhall ſhow in the ſequel. Here are alſo no very ſplendid fortunes raiſed by trade. Conſequently it may be inferred, that the city is neither famous for riches, nor remarkable for poverty. Here are indeed conſiderable eſtates, though their produce is not at all equal to their extent: but the commerce, though ſmall, is continual. It muſt alſo be obſerved, to the credit of this city, that the more wealthy families have large quantities of plate, which is daily made uſe of; and indeed, through the ſeveral claſſes, their tables are never deſtitute of one piece of plate at leaſt.

CHAP. VI. — *Of the Temperature of the Air at Quito; Diſtinction between Winter and Summer; Inconveniences, Advantages, and Diſtempers.*

TO form a right judgment of the happy temperature of the air of Quito, experience muſt be made uſe of, to correct the errors which would ariſe from mere ſpeculation; as without that unerring guide, or the information of hiſtory, who would imagine, that in the centre of the torrid zone, or rather under the equinoctial, not only the heat is very tolerable, but even, in ſome parts, the cold painful; and that others enjoy all the delights and advantages of a perpetual ſpring, their fields being always covered with verdure, and enamelled with flowers of the moſt lively colours! The mildneſs of the climate, free from the extremes of cold and heat, and the conſtant equality of the nights and days, render a country pleaſant and fertile, which uninformed reaſon would, from its ſituation, conclude to be uninhabitable: Nature has here ſcattered her bleſſings with ſo liberal a hand, that this country ſurpaſſes thoſe of the temperate zones, where the viciſſitudes of winter and ſummer, and the change from heat to cold, cauſe the extremes of both to be more ſenſibly felt.

The method taken by Nature to render this country a delightful habitation, conſiſts in an aſſemblage of circumſtances, of which, if any were wanting, it would either be utterly uninhabitable, or ſubject to the greateſt inconveniences. But by this extraordinary aſſemblage, the effect of the rays of the ſun is averted, and the heat of that glorious planet moderated. The principal circumſtance in this aſſemblage is its elevated ſituation above the ſurface of the ſea; or, rather, of the whole earth; and thus, not only the reflection of the heat is diminiſhed, but by the elevation of this country, the winds are more ſubtile, congelation more natural, and the heat abated. Theſe are ſuch

natural effects as muſt doubtleſs be attributed to its ſituation; and is the only circumſtance from whence ſuch prodigies of nature, as are obſerved here, can proceed. In one part are mountains of a ſtupendous height and magnitude, having their ſummits covered with ſnow; on the other, volcanoes flaming within, while their ſummits, chaſms, and apertures, are involved in ice. The plains are temperate; the breaches and valleys hot; and, laſtly, according to the diſpoſition of the country, its high or low ſituation, we find all the variety of gradations of temperature, poſſible to be conceived between the two extremes of heat and cold.

Quito is ſo happily ſituated, that neither the heat nor cold is troubleſome, though the extremes of both may be felt in its neighbourhood; a ſingularity ſufficiently demonſtrated by the following thermometrical experiments. On the 31ſt of May 1736, the liquor in the thermometer ſtood at 1011; at half an hour after twelve at noon, at 1014; on the firſt of June, at ſix in the morning, at 1011; and, at noon, at 1012½. But what renders this equality ſtill more delightful, is, that it is conſtant throughout the whole year, the difference between the ſeaſons being ſcarce perceptible. Thus the mornings are cool, the remainder of the day warm, and the nights of an agreeable temperature. Hence the reaſon is plain, why the inhabitants of Quito make no difference in their dreſs during the whole year; ſome wearing ſilks or light ſtuffs, at the ſame time others are dreſſed in garments of ſubſtantial cloth; and the former as little incommoded by the cold as the latter are by heat.

The winds are healthy, and blow continually, but never with any violence. Their uſual ſituations are north and ſouth, though they ſometimes ſhift to other quarters, without any regard to the ſeaſon of the year. Their inceſſant permanence, notwithſtanding their conſtant variations, preſerves the country from any violent or even diſagreeable impreſſions of the rays of the ſun. So that, were it not for ſome inconveniences to which this country is ſubject, it might be conſidered as the moſt happy ſpot on the whole earth. But when theſe diſagreeable incidents are conſidered, all its beauties are buried in obſcurity; for here are dreadful and amazing tempeſts of thunder and lightning, and the ſtill more deſtructive ſubterraneous earthquakes, which often ſurpriſe the inhabitants in the midſt of ſecurity. The whole morning, till one or two in the afternoon, the weather is generally extremely delightful; a bright ſun, ſerene and clear ſky, are commonly ſeen; but afterwards the vapours begin to riſe, the whole atmoſphere is covered with black clouds, which bring on ſuch dreadful tempeſts of thunder and lightning, that all the neighbouring mountains tremble, and the city too often feels their dreadful effects. Laſtly, the clouds diſcharge themſelves in ſuch impetuous torrents of rain, that in a very ſhort time the ſtreets appear like rivers, and the ſquares, though ſituated on a ſlope, like lakes. This dreadful ſcene generally continues till near ſun-ſet, when the weather clears up, and Nature again puts on the beautiful appearance of the morning. Sometimes, indeed, the rains continue all the night, and they have been known to laſt three or four days ſucceſſively.

On the other hand, this general courſe of the weather has its exceptions, three, four, or ſix, or even eight fine days ſucceeding each other; though, after raining ſix or eight days in the manner above mentioned, it is rare that any falls during the two or three ſucceeding. But, from the moſt judicious obſervations, it may be concluded, that theſe intervals of fine or foul weather make up only one fifth of the days of the year.

The diſtinction of winter and ſummer conſiſts in a very minute difference obſervable between the one and the other. The interval between the month of September, and April, May, or June, is here called the winter ſeaſon; and the other months compoſe the ſummer. In the former ſeaſon the rain chiefly prevails, and in the ſecond the inhabitants frequently enjoy intervals of fine weather; but whenever the rains are diſcontinued

for above a fortnight, the inhabitants are in the utmoſt conſternation, and public prayers are offered up for their return. On the other hand, when they continue any time without intermiſſion, the like fears return, and the churches are again crowded with ſupplicants for obtaining fine weather. For a long drought here is productive of dangerous diſtempers; and a continual rain, without any intervals of ſun-ſhine, deſtroys the fruits of the earth: thus the inhabitants are under a continual anxiety. Beſides the advantages of the rains for moderating the intenſe rays of the ſun, they are alſo of the greateſt benefit in cleanſing the ſtreets and ſquares of the city, which by the filthineſs of the common people at all hours, are every where full of ordure.

Earthquakes cannot be accounted a leſs terrible circumſtance than any of the former; and if not ſo frequent as in other cities of theſe parts, they are far from being uncommon, and often very violent. While we continued in this city and its juriſdiction, I particularly remember two, when ſeveral county-ſeats and farm-houſes were thrown down, and the greater part of the numerous inhabitants buried in ruins.

It is doubtleſs to ſome unknown quality of the temperature of the air, that the city owes one remarkable convenience, which cannot fail of greatly recommending it: namely, being totally free from moſchitos or other inſects of that kind, which almoſt render life a burthen in hot countries. They are not known to the inhabitants; even a flea is ſeldom ſeen here; nor are the people moleſted with venomous reptiles. In ſhort, the only troubleſome inſect is the pique or nigua, whoſe noxious effects have been already treated of.

Though the plague or peſtilence, in its proper ſenſe, be not known here, no inſtance of its ravages having appeared in any part of America, yet there are ſome diſtempers which have many ſymptoms of it, but concealed under the names of malignant ſpotted fevers and pleuriſies; and theſe generally ſweep away ſuch prodigious numbers, that, when they prevail, the city may with propriety be ſaid to be viſited with a peſtilential contagion. Another diſeaſe common here is that called mal del valle, or vicho; a diſtemper ſo general, that, at the firſt attack of any malady, they make uſe of medicines adapted to the cure of it, from its uſually ſeizing a perſon two or three days after a fever. But M. de Juſſieu often obſerved, that the remedies were generally adminiſtered to perſons not at all affected by the diſtemper, which, in his opinion, is a gangrene in the rectum; a diſeaſe very common in that climate, and conſequently at the firſt attack all means ſhould be uſed to prevent its progreſs. Perſons who labour under a flux are moſt liable to that malady; but the inhabitants of this country being firmly perſuaded that there can be no diſtemper that is not accompanied with the vicho, the cure is never delayed. The operation muſt be attended with no ſmall pain, as a peſſary, compoſed of gun-powder, Guinea-pepper, and a lemon peeled, is inſinuated into the anus, and changed two or three times a day, till the patient is judged to be out of danger.

The venereal diſeaſe is here ſo common, that few perſons are free from it, though its effects are much more violent in ſome than in others; and many are afflicted with it, without any of its external ſymptoms. Even little children, incapable by their age of having contracted it actively, have been known to be attacked in the ſame manner by it as perſons who have acquired it by their debauchery. Accordingly there is no reaſon for caution in concealing this diſtemper, its commonneſs effacing the diſgrace that in other countries attends it. The principal cauſe of its prevalence is, negligence in the cure. For the climate favours the operations of the medicines, and the natural temperature of the air checks the malignity of the virus more than in other countries. And hence few are ſalivated for it, or will undergo the trouble of a radical cure. This

diſeaſe

diſeaſe muſt naturally be thought in ſome meaſure to ſhorten their lives; though it is not uncommon to ſee perſons live ſeventy years or more, without ever having been entirely free from that diſtemper, either hereditary, or contracted in their early youth.

During the continuance of the north and north-eaſt winds, which are the coldeſt from paſſing over the froſty deſerts, the inhabitants are afflicted with very painful catarrhs, called Pechugueras. The air is then ſomething diſagreeable, the mornings being ſo cold as to require warmer clothing; but the ſun ſoon diſperſes this inconvenience.

As the peſtilence, whoſe ravages among the human ſpecies in Europe, and other parts, are ſo dreadful, is unknown both at Quito and throughout all America, ſo is alſo the madneſs in dogs. And though they have ſome idea of the peſtilence, and call thoſe diſeaſes ſimilar in their effects by that name, they are entirely ignorant of the canine madneſs; and expreſs their aſtoniſhment when an European relates the melancholy effects of it. Thoſe inhabitants, on the other hand, are here ſubject to a diſtemper unknown in Europe, and may be compared to the ſmall-pox, which few or none eſcape; but having once got through it, they have nothing more to apprehend from that quarter. This diſtemper is one of thoſe called peſte; and its ſymptoms are convulſions in every part of the body, a continual endeavour to bite, delirium, vomiting blood; and thoſe whoſe conſtitutions are not capable of ſupporting the conflicts of the diſtemper, periſh. But this is not peculiar to Quito, being equally common throughout all South America.

CHAP. VII. — *Fertility of the Territories of Quito, and the common Food of its Inhabitants.*

THOUGH an account of the fruits ſhould naturally ſucceed that of the climate, I determined, on account of their variety, and their being different in different parts, to defer a circumſtantial deſcription, till I come to treat more particularly of each of the juriſdictions. So that I ſhall here only take a tranſient view of the perennial beauty and pleaſantneſs of the country; which has hardly its equal in any part of the known world: the equability of its air exempts it from any ſenſible changes, whereby the plants, corn, and trees, are ſtripped of their verdure and ornaments, their vegetative powers checked, and themſelves reduced to a torpid inactivity. The fertility of this country, if fully deſcribed, would appear to many incredible, did not the conſideration of the equality and benignity of the climate inforce its probability. For both the degrees of cold and heat are here ſo happily determined, that the moiſture continues, and the earth ſeldom fails of being cheriſhed by the fertilizing beams of the ſun, ſome part of every day; and therefore it is no wonder that this country ſhould enjoy a greater degree of fertility than thoſe where the ſame cauſes do not concur; eſpecially if we conſider, that there is no ſenſible difference throughout the year; ſo that the fruits and beauties of the ſeveral ſeaſons are here ſeen at the ſame time. The curious European obſerves, with a pleaſing admiration, that whilſt ſome herbs of the field are fading, others of the ſame kind are ſpringing up; and whilſt ſome flowers are loſing their beauty, others are blowing, to continue the enamelled proſpect. When the fruits have obtained their maturity, and the leaves begin to change their colour, freſh leaves, bloſſoms, and fruits, are ſeen in their proper gradations on the ſame tree.

The ſame inceſſant fertility is conſpicuous in the corn, both reaping and ſowing being carried on at the ſame time. That corn which has been recently ſown is coming up;

up; that which has been longer ſown is in its blade, and the more advanced begins to bloſſom. So that the declivities of the neighbouring hills exhibit all the beauties of the four ſeaſons at one ſingle view.

Though all this is generally ſeen, yet there is a ſettled time for the grand harveſt. But ſometimes the moſt favourable ſeaſon for ſowing in one place, is a month or two after that of another, though their diſtance is not more than three or four leagues; and the time for another at the ſame diſtance not then arrived. Thus, in different ſpots, ſometimes in one and the ſame, ſowing and reaping are performed throughout the whole year, the forwardneſs or retardment naturally ariſing from the different ſituations, as mountains, riſing grounds, plains, valleys, and breaches; and the temperature being different in each of theſe, the times for performing the ſeveral operations of huſbandry muſt alſo differ. Nor is this any contradiction to what I have before advanced, as will be ſeen in the following account of the juriſdiction.

This remarkable fecundity of the ſoil is naturally productive of excellent fruits and corn of every kind, as is evident from the delicacy of the beef, veal, mutton, pork, and poultry of Quito. Here is alſo wheat bread in ſufficient plenty; but the fault is, that the Indian women, whoſe buſineſs it is to make it, are ignorant of the beſt methods both of kneading and baking it; for the wheat of itſelf is excellent, and the bread baked in private houſes equal to any in the known world. The beef, which is not inferior to that of Europe, is ſold in the markets by the quarter of the hundred for four rials of that country money, and the buyer has the liberty of chooſing what part he pleaſes. Mutton is ſold either by the half or quarter of a ſheep; and when fat, and in its prime, the whole carcaſe is worth about five or ſix rials. Other ſpecies of proviſions are ſold by the lump, without weight or meaſure, and the price regulated by cuſtom.

The only commodity of which there is here any ſcarcity is puſſe; but this deficiency is ſupplied by roots, the principal of which are the camates, arucachas, yucas, ocas, and papas; the three former are the natives of hot countries, and cultivated in the plantations of ſugar canes, and ſuch ſpots are called vallies, or yungas, though theſe names have different ſenſes, the former ſignifying plains in a bottom, and the latter thoſe on the ſides of the Cordillera; but both in a hotter expoſure. In theſe are produced the plantains, guincos, Guinea-pepper, chirimogas, aguacates, granadillas, pinas, guayabas, and others natural to ſuch climates, as I have already obſerved in other countries. The colder parts produce pears, peaches, nectarines, quaitambos, aurimelos, apricots, melons, and water-melons; the laſt have a particular ſeaſon, but the others abound equally throughout the whole year. The parts which cannot be denominated either hot or cold, produce frutillas, or Peru ſtrawberries, and apples. The ſucculent fruits, which require a warm climate, are in great plenty throughout the whole year, as China and Seville oranges, citrons, lemons, limes, cidras, and toronjas. Theſe trees are full of bloſſoms and fruit all the year round, equally with thoſe which are natives of this climate. Theſe fruits abundantly ſupply the tables of the inhabitants, where they are always the firſt ſerved up, and the laſt taken away. Beſides the beautiful contraſt they form with the other diſhes, they are alſo uſed for increaſing the pleaſure of the palate, it being a cuſtom among the people of rank here, to eat them alternately with their other food, of which there is always a great variety.

The chirimoyas, aguacates, guabas, granadillas, and Peruvian ſtrawberries, being fruits of which, as well as of the ocos and papas, I have not yet given any deſcription, I ſhall here give the reader a brief account of them. The chirimoya is univerſally allowed to be the moſt delicious of any known fruit either of India or Europe. Its

dimenſions are various, being from one to five inches in diameter. Its figure is imperfectly round, being flatted towards the ſtalk; where it forms a kind of navel; but all the other parts nearly circular. It is covered with a thin ſoft ſhell, but adhering ſo cloſely to the pulp, as not to be ſeparated without a knife. The outward coat, during its growth, is of a dark green, but on attaining its full maturity becomes ſomewhat lighter. This coat is variegated with prominent veins, forming a kind of network all over it. The pulp is white, intermixed with ſeveral almoſt imperceptible fibres, concentring in the core, which extends from the hollow of the excreſcence to the oppoſite ſide. As they have their origin near the former, ſo in that part they are larger and more diſtinct. The fleſh contains a large quantity of juice reſembling honey, and its taſte ſweet mixed with a gentle acid, but of a moſt exquiſite flavour. The ſeeds are formed in ſeveral parts of the fleſh, and are about ſeven lines in length, and three or four in breadth. They are alſo ſomewhat flat, and ſituated longitudinally.

The tree is high and tufted, the ſtem large and round, but with ſome inequalities; full of elliptic leaves, terminating in a point. The length is about three inches and a half, and the breadth two or two and a half. But what is very remarkable in this tree is, that it every year ſheds and renews its leaves. The bloſſom, in which is the embryo of the fruit, differs very little from the leaves in colour, which is a darkiſh green; but when arrived to its full maturity is of a yellowiſh green. It reſembles a caper in figure, but ſomething larger, and compoſed of four petals. It is far from being beautiful; but this deficiency is abundantly ſupplied by its incomparable fragrancy. This tree is obſerved to be very parſimonious in its bloſſoms, producing only ſuch as would ripen into fruits, did not the extravagant paſſion of the ladies, for the excellence of the odour, induce them to purchaſe the bloſſoms at any rate.

The aguacate, which in Lima and other parts of Peru is known by the ancient Indian name Plata, may alſo be claſſed among the choiceſt fruits of this country. Its figure in ſome meaſure reſembles the calabaſhes of which ſnuff-boxes are made; that is, the lower part is round, and tapers away gradually towards the ſtalk; from whence to its baſe the length is uſually between three and five inches. It is covered with a very thin, gloſſy, ſmooth ſhell, which, when the fruit is thoroughly ripe, is detached from the pulp. The colour, both during its growth and when arrived at perfection, is green, but turns ſomething paler as it ripens; the pulp is ſolid, but yields to the preſſure of the finger; the colour white, tinged with green, and the taſte ſo inſipid as to require ſalt to give it an agreeable reliſh. It is fibrous, but ſome more ſo than others. The ſtone of this fruit is two inches long, one and a half in thickneſs, and terminates in a point. The taſte is ſour. It may be opened with a knife, and conſiſts of two lobes, between which may be diſtinctly perceived the germ of the tree. Within the ſhell is a very thin tegument, which ſeparates it from the pulp, though ſometimes the tegument adheres to the pulp, and at other times to the ſhell. The tree is lofty and full of branches; the leaf, both in dimenſion and figure, ſomething different from that of the chirimoya.

In the province of Quito they give the name of guabas to a fruit, which, in all the other parts of Peru, is called by its Indian name Pacaes. It conſiſts of a pod like that of the algarobo, a little flat on both ſides. Its uſual length is about a foot, though there are different ſizes, ſome larger and ſome ſmaller, according to the country where they grow. Its outward colour is a dark green, and covered with a down, which feels ſmooth when ſtroked downwards, and rough when the hand is moved in the contrary direction, as in velvet. The pod, opened longitudinally, is found

divided into ſeveral cells, each containing a certain ſpungy medulla, very light, and equal to cotton in whiteneſs. In this are incloſed ſome black ſeeds of a very diſproportionate ſize, the medulla, whoſe juice is ſweet and cooling, not being above a line and a half in thickneſs round each ſeed.

The granadilla reſembles a hen's egg in ſhape, but larger. The outſide of the ſhell is ſmooth and gloſſy, and of a faint carnation colour, and the inſide white and ſoft. It is about a line and a half in thickneſs, and pretty hard. This ſhell contains a viſcous and liquid ſubſtance, full of very ſmall and delicate grains leſs hard than thoſe of the pomegranate. This medullary ſubſtance is ſeparated from the ſhell, by an extreme fine and tranſparent membrane. This fruit is of a delightful ſweetneſs, blended with acidity, very cordial and refreſhing, and ſo wholeſome that there is no danger in indulging the appetite. The two former are alſo of the ſame innocent quality. The granadilla is not the produce of a tree, but of a plant, the bloſſom of which reſembles the paſſion-flower,* and of a moſt delicate fragrance. But we muſt obſerve a remarkable ſingularity in the fruits of this country, namely, that they do not ripen on the trees, like thoſe of Europe, but muſt be gathered and kept ſome time; for if ſuffered to hang on the trees they would decay.

The laſt of the fruits I ſhall mention is the frutilla, or Peru ſtrawberry, very different from that of Europe in ſize; for though generally not above an inch in length, and two-thirds of an inch in thickneſs, they are much larger in other parts of Peru. Their taſte, though juicy and not unpalatable, is not equal to thoſe of Europe. The whole difference between the plant and that known in Spain conſiſts in its leaves being ſomewhat larger.

The papas are natives of a cold climate; and being common in ſeveral parts of Europe, where they are known by the name of potatoes, all I ſhall ſay of them is, that they are a favourite food with the inhabitants of theſe countries, who eat them inſtead of bread, nor is there a made diſh or ragout in which they are not an ingredient. The Creoles prefer them to any kind of meat, or even fowl. A particular diſh is made of them, and ſerved up at the beſt tables, called Locro; and is always the laſt, that water may be drank after it, which they look upon as otherwiſe unwholeſome. This root is the chief food of the lower claſs; and they find it ſo nutritive and ſtrengthening, that they are not deſirous of more ſolid food.

The oca is a root about two or three inches in length, and about half an inch, or ſomething more, in thickneſs, though not every where equal, having a kind of knots where they twiſt and wreath themſelves. This root is covered with a very thin and tranſparent ſkin, whoſe colour is in ſome yellow, in ſome red, and others orange. It is eaten either boiled or roaſted, and has nearly the ſame taſte as a cheſnut; with this difference, however, common to all the fruits of America, that the ſweetneſs predominates. It is both pickled and preſerved, the latter being what the Americans are very fond of. This root is alſo an ingredient in many made diſhes. The plant is ſmall, like the camote, yucas, and others already deſcribed.

With regard to the corn of this country, there is no neceſſity for enumerating the ſpecies, they being the ſame with thoſe known in Spain. The maize and barley are uſed by the poor people, and particularly by the Indians, in making bread. They have ſeveral methods of preparing the maize; one is by parching, which they call Camea. They alſo make from this grain a drink called Chica, uſed by the Indians in

* This is the identical paſſion-flower, which in England never bears any fruit, the climate being too cold. A.

the times of the Yncas, and ſtill very common. The method of making it is this: they ſteep the maize in water till it begins to ſprout, when they ſpread it in the ſun, where it is thoroughly dried; after which they roaſt and grind it, and of the flour they make a decoction of what ſtrength they pleaſe. It is then put into jars or caſks, with a proportional quantity of water. On the ſecond or third day it begins to ferment, and when that is completed, which is in two or three days more, they eſteem it fit for drinking. It is reckoned very cooling; and that it is inebriating, is ſufficiently evident from the Indians: thoſe people have indeed ſo little government of themſelves, that they never give over till they have emptied the caſk. Its taſte is not unlike cyder; but ſeems in ſome meaſure to require the diſpatch of the Indians, turning ſour in ſeven or eight days after the fermentation is completed. Beſides its ſuppoſed quality of being cooling, it is, among other medical properties, confeſſedly diuretic; and to the uſe of this liquor the Indians are ſuppoſed to be indebted for their being ſtrangers to the ſtrangury or gravel. It is alſo not ſurpriſing that thoſe people who drink it, without any other food than cancha, mote, and muchea, are, with the help of this liquor, healthy, ſtrong, and robuſt.

Maize boiled till the grains begin to ſplit, when it is called Mote, ſerves for food to the Indians, the poor people, and ſervants in families, who being habituated to it, prefer it to bread.

Maize, before it is ripe called Choglos, is ſold in the ear, and among the poorer ſort of inhabitants eſteemed a great dainty.

Beſides the grains of the ſame ſpecies with thoſe in Spain, this country has one peculiar to itſelf, and very well deſerving to be ranked among the moſt palatable foods; but ſtill more valuable for its being one of the preſervatives againſt all kinds of abſceſſes and impoſthumes. This uſeful ſpecies of grain, here called Quinoa, reſembles a lentil in ſhape, but much leſs, and very white. When boiled it opens, and out of it comes a ſpiral fibre, which appears like a ſmall worm, but whiter than the huſk of the grain. It is an annual plant, being ſowed and reaped every year. The ſtem is about three or four feet in height, and has a large pointed leaf, ſomething like that of the malloro; the flower is of a deep red, and five or ſix inches in length, and in it are contained the grains or ſeed. The quinoa is eaten boiled like rice, and has a very pleaſant taſte; and the water in which it has been boiled, is often uſed as an apozem. The quinoa is uſed in external applications, in order to which it is ground and boiled to a proper conſiſtence; and applied to the part affected, from which it ſoon extracts all corrupt humours occaſioned by a contuſion.

Beſides domeſtic animals, here are great numbers of rabbits caught on the deſerts. The partridges are not very plenty, and rather reſemble a quail than thoſe of Europe. Turtle-doves abound here, greatly owing to the indolence of the inhabitants in not endeavouring to take them.

But one of the principal foods uſed by the inhabitants is cheeſe, of which it is computed that the quantity annually conſumed amounts to between ſeventy and eighty thouſand dollars of that country money. It is uſed in various manners, and is the chief ingredient in many diſhes. The neighbourhood of Quito alſo affords excellent butter, and of which there is a great conſumption, but falls far ſhort of that of cheeſe.

The fondneſs of theſe people for ſweetmeats exceeds every thing I have ever mentioned of other countries; and this neceſſarily occaſions a great conſumption of ſugar and honey. One method of indulging this appetite is, to ſqueeze the juice out of the ſugar canes, let it ſettle, and curdle it, out of which they make ſmall cakes, which they call raſpaduras. This is ſo highly valued by the lower claſs, that with a ſlice of it, and

another of bread and cheeſe, they make as hearty a meal as the rich with all their variety of diſhes. Thus it appears, that if there be ſome difference between the foods uſed here and thoſe of Spain, the difference in their preparing them is ſtill greater.

CHAP. VIII. — *Of the Commerce of the Province of Quito.*

FROM the two preceding chapters, a ſufficient judgment may be formed of the products and manufactures in the province of Quito, which are the ſources of its commerce. The perſons who are the chief conductors of this commerce, are the Europeans or Chapitones; ſome ſettled here, and others coming occaſionally. The latter purchaſe the country goods, and ſell thoſe of Europe. The manufactures of this province, as we have already noticed, are only cottons, ſome white called Tucuyos, and others ſtriped bays and cloths, which meet with a good market at Lima for ſupplying all the inward provinces of Peru. The returns are made partly in ſilver, partly in gold and ſilver thread fringes made in that city; wine, brandy, oil, copper, tin, lead, and quickſilver. The maſters of the manufactures either ſell their goods to the traders, or employ them as their factors.

On the arrival of the galleons at Carthagena, the traders reſort thither either by the way of Popayan or that of Santa Fé, to purchaſe European goods, which, at their return, they conſign to their correſpondents all over the province.

The products of the earth are chiefly conſumed within the province, except the wheat produced in the juriſdiction of Riobamba and Chimbo, part of which are ſent to Guayaquil. But this is a trade carried on only by Meſtizos and poor people. It would indeed admit of great improvements, were not the freights ſo exceſſively high, that the trouble and expence of carrying them from Guayaquil to other countries, where there is a ſcarcity of them, renders it impoſſible to get a living profit.

Goods, manufactured by the public, or wove by private Indians, are, together with ſome kinds of proviſions, ſent to the juriſdiction of Barbacoas; and this is the commerce in which the Chapitones make the firſt eſſay of their abilities for trade. Theſe proviſions are exchanged for gold, found in that country, and which is afterwards ſent to Lima, where it bears a greater price. Their ſtuffs alſo find a vent in the governments of Popayan and Santa Fé; and this commerce is perpetually carried on; but the only return in the tiempo muerto, or abſence of the galleons, is gold, which, like that from Barbacoas, is ſent to Lima.

The coaſt of New Spain ſupplies this province with indigo, of which there is a very large conſumption at the manufactories, blue being univerſally the colour which this people affect in their apparel. They alſo import, by way of Guayaquil, iron and ſteel both from Europe and the coaſt of Guatemala; and though it fetches ſo high a price, that a quintal of iron ſells for above a hundred dollars, and the ſame quantity of ſteel for a hundred and fifty, there is a continual demand in order to ſupply the peaſants with the neceſſary inſtruments of agriculture.

The inland, or reciprocal commerce, conſiſts in the conſumption of the products of one juriſdiction in another; and is a conſtant incentive to induſtry among the inhabitants of the villages, and the lower claſs. Thoſe of the province of Chimbo purchaſe home-made tucuyos and bags in thoſe of Riobamba and Quito, in order to vend them at Guayaquil, bringing thence, in return, ſalt, fiſh, and cotton; the latter of which, being wove in the looms of Quito, is again ſent to Guayaquil in ſtuffs. The juriſdictions

tions of Riobamba, Alauſi and Cuenca, by means of the warehouſes at Yaguache and Noranjal, carry on a conſiderable trade with Guayaquil.

This trade in the manufactures of that country, which conſiſt only of three ſorts, cloth, bags, and linen, is attended with conſiderable profit to the traders, and advantage to the country, as all the poor people, who are remarkably numerous, and perſons of ſubſtance, except thoſe of the capital, wear the goods manufactured in the country; thoſe of Europe being ſo prodigiouſly dear, that only Spaniards of large fortune, and perſons of the higheſt diſtinction, can afford to purchaſe them. The quantity of cloth and ſtuffs wove in this country, and all by Indians, either in the public manufactures or their own houſes, appears from hence to be prodigiouſly great: and to this, in a great meaſure, is owing the happy ſtate of this province; the maſters and traders ſoon raiſing fortunes, and the ſervants and dependents contented with the fruits of their induſtry.

BOOK VI.

DESCRIPTION OF THE PROVINCE OF QUITO.

CHAP. I. — *Extent of the Province of Quito, and the Juriſdiction of its Audience.*

IN the five preceding books, we have endeavoured, as far as the nature of the ſubject would permit, to follow the order which the ſeries of our voyage required; and we flatter ourſelves it will appear, that, though our principal attention was directed to the aſtronomical obſervations, we have not omitted any intereſting particular, relating to the towns and provinces through which we paſſed. We were always perſuaded, that if the former tended to the improvement of ſcience, and was agreeable to thoſe who profeſs it; the latter might prove uſeful to hiſtorians, and be acceptable to thoſe who apply themſelves to the ſtudy of the conſtitution, ſtate, cuſtoms, and genius of nations. We cloſed the fifth book with an account of the city of Quito; this we ſhall employ in treating of the province, which is equally an object of curioſity; and we are enabled to gratify the reader in the moſt ſatisfactory manner, having, in the courſe of our obſervations, not only ſurveyed its whole extent, but, by our long ſtay, obtained the acquaintance of many perſons of undoubted judgment and veracity, on whom we could rely for particulars not to be known from ocular inſpection. So that we have ſufficient reaſons for warranting the truth of the contents of this hiſtory.

The large province of Quito, at the time when the Spaniards firſt ſettled in it, was annexed to the kingdom of Peru, and continued ſo till the year 1718, when a new viceroyalty being erected at Santa Fé de Bogota, the capital of the new kingdom of Granada, it was diſmembered from Peru, and annexed to Granada. At the ſame time the audience of Quito was ſuppreſſed, together with that of Panama, in the kingdom of Terra Firma; though the latter continued dependent on the viceroys of Lima. The intention in this frugal ſcheme was, that the ſalaries of the great number of officers in both, which ceaſed on this abolition, ſhould be applied to the ſupport of the new viceroyalty, in order to prevent any additional burden on the royal revenue; a conſequence otherwiſe

otherwiſe unavoidable. But experience has ſhown the impropriety and inſufficiency of this meaſure; and that the tribunals aboliſhed were of indiſpenſable neceſſity in their reſpective cities; an inſupportable detriment reſulting to the inhabitants from the vaſt diſtance of the audiences aſſigned them; which were, Lima for the kingdom of Terra Firma, and thoſe of the province of Quito, were to apply for juſtice to the audience of Santa Fé. And as the amount of all the ſalaries ſuppreſſed, beſides the prejudicing many families, was not ſufficient to ſupport the dignity of a viceroy, new ideas ſucceeded; and rather than keep it up at the expence of the royal revenue, the viceroyalty was ſuppreſſed, and things placed again on their ancient footing in the year 1722: the officers were reſtored to their former poſts which they had ſo worthily filled, and the audiences have continued the ſame as before. But the motives for erecting a new viceroyalty at Santa Fé being confeſſedly of the greateſt importance, its reſtitution was again brought on the carpet; and the great difficulty of ſupporting it, without detriment either to the public or the audiences, the ſuppreſſion of which had been ſo detrimental to the inhabitants, being overcome, the dignity of viceroyalty was again erected in the year 1739, Don Sebaſtian de Eſlaba, lieutenant-general, being appointed the firſt viceroy, and arrived in the beginning of the year 1740 to take poſſeſſion of his government; which included the whole kingdom of Terra Firma and the province of Quito.

This province is bounded on the north by that of Santa Fé de Bogota, and includes part of the government of Papayan; on the ſouth it is limited by the governments of Peru and Chachapoyas; eaſtward it extends over the whole government of Maynas, and the river of the Amazons, to the meridian of demarcation, or that which divides the dominions of Spain and Portugal. Its weſtern boundary is the ſea, from the coaſt of Machala, in the gulf of Puna, to the coaſt of the government of Atacames and the juriſdiction of Barbacoas, in the bay of Gorgona. Its greateſt breadth from north to ſouth is about 200 leagues; and its length, from eaſt to weſt, the whole extent from Cape de Santa Elena, in the ſouth-ſea, to the meridian above mentioned; which, by the moſt accurate computation, is 600 leagues. But a very great part of theſe vaſt dominions are, it muſt be owned, either inhabited by nations of ſavage Indians, or have not hitherto been thoroughly peopled by the Spaniards, if indeed they have been ſufficiently known. All the parts that can properly be ſaid to be peopled, and actually ſubject to the Spaniſh government, are thoſe intercepted by the two Cordilleras of the Andes, which, in compariſon to the extent of the country, may be termed a ſtreet or lane, extending from the juriſdiction of the town of St. Miguel de Ibarra to that of Loga; the country from hence to the government of Popayan, and alſo that comprehended between the weſtern Cordillera and the ſea. With this limitation the extent of the juriſdictions from eaſt to weſt will be fifteen leagues or ſomething more, being the diſtance intercepted between the two Cordilleras. But to this muſt be added the countries comprehended in the governments of Jaen de Bracamoros, which borders on the juriſdiction of Loja, and the extremity of the whole province, and ſituated on the eaſt ſide of the eaſtern Cordillera; and, to the northward, the government of Quixos, and that of Maynas to the eaſtward of it; but ſeparated by large tracts of land inhabited by wild Indians; and on the north ſide of the province from that of Papayan; though the latter is properly a diſtinct province from that of Quito. Thus on the weſt ſide of that interval between the two Cordilleras, lies the lately erected government of Atacames, and the juriſdiction of Guayaquil: on the eaſt ſide, the three governments above mentioned; and on the north, that of Papayan.

This province, excluſive of theſe five governments, conſiſts of nine juriſdictions, which in that country are called provinces, that of Quito being ſubdivided into as many

others

others as there are governments and juriſdictions; which it is neceſſary for the reader to obſerve, in order to avoid any perplexity or miſtake, when a juriſdiction happens to be called a province; though I ſhall be careful to avoid it as much as poſſible. The juriſdictions in the province of Quito, beginning with the moſt northern, are the following:—

I. The town of San Miguel de Ibarra.
II. The village of Otabala.
III. The city of Quito.
IV. The aſſiento of Latacunga.
V. The town of Riobamba.
VI. The aſſiento of Chimbo, or Guaranda.
VII. The city of Guayaquil.
VIII. The city of Cuenca.
IX. The city of Loja.

Of theſe nine juriſdictions I ſhall give a ſuccinct account in this and the following chapter, and then proceed to the governments.

I. The town of San Miguel de Ibarra, is the capital of the juriſdiction of that name, which alſo contains eight principal villages or pariſhes, the names of which are,

I. Mira.
II. Pimanpiro.
III. Carangue.
IV. San Antonio de Carangue.
V. Salinas.
VI. Tumbabiro.
VII. Quilca.
VIII. Caguaſqui.

This juriſdiction formerly included that of Otabalo,; but, on account of its too enormous extent, it was prudently divided into two.

The town of San Miguel de Ibarra ſtands on the extremity of a very large plain or meadow, at a ſmall diſtance from a chain of mountains to the eaſtward of it, and betwixt two rivers, which keep this whole plain in a perpetual verdure. The ſoil is ſoft and moiſt, which not only renders the houſes damp, but alſo cauſes the foundations of their buildings often to ſink. It is moderately large, with ſtraight broad ſtreets, and the greateſt part of the houſes of ſtone, or unburnt bricks, and all tiled. The town is ſurrounded by ſuburbs inhabited by the Indians, whoſe cottages make the ſame appearance as in all other mean places; but the houſes are neat and uniform, though they are but low, having only a ground floor, except thoſe in the ſquare, which have one ſtory. The pariſh church is a large and elegant ſtructure, and of the ſame materials as the houſes. It is alſo well ornamented. This town has convents of Franciſcans, Dominicans, the Fathers of Mercy, a college of Jeſuits, and a nunnery of the order of the Conception. Its inhabitants, of all ages, ſects, and claſſes, are computed at ten or twelve thouſand ſouls.

Within the limits of this juriſdiction is the lake of Yagarchoca, famous for being the ſepulchre of the inhabitants of Otabalo, on its being taken by Huayna-Capac, the twelfth Ynca, who, inſtead of ſhewing clemency to their magnanimity, being irritated at the noble reſiſtance they made, ordered them all to be beheaded, both thoſe who had quietly ſurrendered, and thoſe taken in arms, and their bodies thrown into the lake; and from the water of the lake being tinged of a bloody hue, it acquired its preſent name, which ſignifies a lake of blood.

The

The air is very mild, leſs cold than that of Quito, and at the ſame time the heat is not at all inconvenient. The temperature of the air is different in all the villages of this juriſdiction, but in moſt warm, on account of their low ſituation. Theſe parts are all over this country called Valles, as I have already obſerved; and the names of thoſe in the juriſdiction of San Miguel de Ibarra are Chotar Carpuela, and ſeveral others. Moſt of the farms in them have plantations of ſugar canes, and mills for extracting the juice, from whence they make great quantities of ſugar, and very white: ſome are planted with the fruits common in a hot climate; and in others cotton only is cultivated, and to the greateſt perfection.

The ſugar canes do not ripen here ſo late as in Quito; but they may be committed at any time to the mill, there being no neceſſity for cutting them at any preciſe time, retaining all their goodneſs, even when ſuffered to ſtand two or three months after they are ripe; ſo that they are cut every quarter, and the mills by that means kept at work the whole year.

The farms ſituated in a leſs hot part are employed for cultivating maize, wheat, and barley, in the ſame manner as in the juriſdiction of Otabalo, and which we ſhall explain in its proper place. Here are alſo large numbers of goats, but not many ſheep; and though the manufactures here are not ſo numerous as in Otabalo, yet the Indians weave a conſiderable quantity of cloth and cotton.

In the neighbourhood of the village of Salinas are ſalt mines, which, beſides the home conſumption, ſupply the countries to the northward of it. This ſalt has ſome mixture of nitre; and though it may thence be concluded to be leſs wholeſome, yet it is attended with no ill conſequence to thoſe who are accuſtomed to it; but not anſwering the intention in ſalting, that from Guayaquil is uſed inſtead of it.

Within the diſtrict of the village of Mira are great numbers of wild aſſes, which increaſe very faſt, and are not eaſily caught. The owners of the grounds where they are bred ſuffer all perſons to take as many as they can, on paying a ſmall acknowledgment in proportion to the number of days their ſport has laſted. The manner of catching them is as follows: a number of perſons go on horſeback, and are attended by Indians on foot. When arrived at the proper places, they form a circle, in order to drive them into ſome valley, where, at full ſpeed, they throw the nooſe, and halter them; for theſe creatures, on finding themſelves incloſed, make very furious efforts to eſcape, and if only one forces his way through, they all follow with an irreſiſtible impetuoſity. But when the hunters have nooſed them, they throw them down, and ſecure them with fetters, and thus leave them till the hunting is over; when, in order to bring them away with the greater facility, they pair them with tame beaſts: but this is not eaſily performed; for theſe aſſes are ſo remarkably fierce, that they often hurt the perſons who undertake to manage them. They have all the ſwiftneſs of horſes; and neither acclivities nor precipices retard them in their career: when attacked, they defend themſelves with their heels and mouth, with ſuch activity that, without ſlackening their pace, they often maim their purſuers: but the moſt remarkable property in theſe creatures is, that after carrying the firſt load, their celerity leaves them, their dangerous ferocity is loſt, and they ſoon contract the ſtupid look and dullneſs peculiar to the aſinine ſpecies. It is alſo obſervable, that theſe creatures will not permit a horſe to live among them; and if one of them happens to ſtray into the places where they feed, they all fall upon him, and, without giving him the liberty of flying from them, they bite and kick him till they leave him dead on the ſpot. They are very troubleſome neighbours, making a moſt horrid noiſe; for whenever one or two of them begin to bray, they are anſwered in the

ſame vociferous manner by all within the reach of the ſound, which is greatly increaſed and prolonged by the repercuſſions of the valleys and breaches of the mountains.

II. The juriſdiction joining on the ſouth to that of St. Miguel de Ibarra, is called Otabalo, in the juriſdiction of which are the following eight principal villages or pariſhes:

I. Cayambe.
II. Tabacundo.
III. Otabalo.
IV. Atontaqui.
V. Cotacache.
VI. San Pablo.
VII. Tocache.
VIII. Urququi.

The pariſh of Otabalo is well ſituated, and ſo large and populous that it is ſaid to contain eighteen or twenty thouſand ſouls, and among them a conſiderable number of Spaniards. But the inhabitants of all the other villages are univerſally Indians.

The lands of this juriſdiction are laid out in plantations like thoſe of the former, except that here are not ſuch great numbers of ſugar mills; but this is compenſated by its great ſuperiority in manufactures, a conſequence reſulting from the multitude of Indians reſiding in its villages, who ſeem to have an innate inclination to weaving; for beſides the ſtuffs made at the common manufactories, ſuch Indians as are not Mitayos, or who are independent, make, on their own account, a variety of goods, as cottons, carpets, pavilions for beds, quilts in damaſk work, wholly of cotton, either white, blue, or variegated with different colours; but all in great repute, both in the province of Quito and other parts, where they are ſold to great advantage.

The method of ſowing wheat and barley in this juriſdiction is very different from that uſed in any of the former; for, inſtead of ſcattering the ſeeds, as is commonly practiſed, they divide the ground, after it is plowed, into ſeveral parts by furrows, and along the ſides of them they make little holes a foot diſtant from one another, putting five or ſix corns into each. However tedious this may be, it is abundantly made up to the farmer by the uncommon increaſe, which is uſually above a hundred fold.

This juriſdiction has a great number of ſtuds of horſes, and multitudes of black cattle, from whoſe milk large quantities of cheeſe are made. This country is happily ſituated for paſture, being every where watered with an infinite number of rivulets. It has alſo large flocks of ſheep, though theſe ſeem to be neglected, in compariſon of the others.

The village of Cayambe ſtands in the middle of a ſpacious plain, at the end of which is the foot of the mountain Cayamburo, one of the largeſt mountains of the Cordilleras in this part of the country, being equal in height to that of Chimborazo, and its ſummits covered with ſnow and ice. Its altitude is ſo much greater than the reſt between it and Quito, that it may be plainly ſeen from that city. The vicinity of this mountain renders the whole plain of Cayambe cold, which is increaſed by the violence and continuance of the winds. In the territories of this juriſdiction are two lakes, one called San Pablo, from a village of that name on its banks; it is a league in length, and about half a league in breadth. This lake is every where ſurrounded with a ſpecies of ruſhes, called there Totoral, among which are vaſt flocks of wild geeſe and gallaretes. This lake receives its water from the mountain of Mojanda, and from it iſſues one of the branches of the Rio Blanco. The other lake, which has nearly the ſame dimenſions as the former, is called Cuichocha, and is ſituated in a plain on the ſide of a mountain of the ſame name. Near the middle of this are two iſlands, both which abound with wild cuyes, a ſpecies of rabbits and deer, which often ſwim to main land; but, when purſued by the hunters, diſappoint them by gaining the lake, and ſwimming back to their retreat.

retreat. Several ſmall fiſh are found in this lake, reſembling the cray-fiſh, but without a ſhell. They are called, by the inhabitants of the adjacent country, prennadillas, and are ſent in the pickle to Quito, where they are the more eſteemed, as being the only freſh-water fiſh that can be bought in that city. Nor are theſe caught in any great quantities, though they are alſo found in the lake of San Pablo.

III. The juriſdiction of Quito conſiſts of the following twenty-five pariſhes, beſides thoſe in the city:

I. St. Juan Evangeliſta.
II. Santa Maria Magdalena.
III. Chilogalle.
IV. Cono-coto.
V. Zambiza.
VI. Pintac.
VII. Sangolqui.
VIII. Amaguana.
IX. Guapulo.
X. Cumbaya.
XI. Co-collao.
XII. Puembo, and Piſo.
XIII. Yaruqui.
XIV. El Quinche.
XV. Guayllabamba.
XVI. Machacha.
XVII. Aloaſio.
XVIII. Aloa.
XIX. Yumbicho.
XX. Alangaſi.
XXI. Pomaſque.
XXII. San Antonio de Lulum-bamba.
XXIII. Perucho.
XXIV. Cola-cali.
XXV. Tumbaco.

This juriſdiction, though called Cinco Leguas, five leagues, extends, in ſome parts, a great deal farther, and the lands are as it were covered with plantations, ſome ſituated in the plains, ſome in the capacious breaches, and others on the ſummit of the mountains; and all producing according to the quality, ſituation, and expoſure of the ground. Thoſe on the temperate plains yield plentiful harveſts of maize; thoſe at the bottoms of deep breaches, being in a hot temperature, are planted with ſugar canes, from whence they extract great quantities of ſugar and rum. From the fruits peculiar to ſuch a temperature are made a variety of ſweetmeats, here called Rayados; and of which there is a great conſumption among the inhabitants.

The ſugar cane ripens very ſlowly in this juriſdiction; for though the plantations enjoy a hot air, yet it is not of that degree of heat requiſite to its ſpeedy maturity; ſo that it is three years after they are planted, before they are fit to be cut. Nor are they ever cut but once, the ſecond crop only producing the ſoca or germ, which ſerves for re-planting.

The guarapo, which we have had occaſion to mention, is nothing more than the juice of the cane, as it flows from the mill, and afterwards ſuffered to ferment. It is very pleaſant, its taſte being a ſweetiſh acidity, and at the ſame time very wholeſome; but inebriating if drunk to exceſs. This liquor is a favourite regale among the vulgar.

The plantations near the ſummits of the mountains, from their having a variety of temperatures, produce wheat, barley, pot-herbs of all kinds, and potatoes.

Above theſe plantations are fed numerous flocks of ſheep, producing that wool, which, from the ſeveral operations it undergoes, affords employment for ſuch multitudes of people. Some farmers make it their ſole buſineſs to breed cows, principally for the advantages they derive from their milk in making cheeſe and butter. In other farm-houſes you ſee various occupations carried on at the ſame time, namely, the breeding of cattle, agriculture, and manufactures, particularly of cloth, bays, and ſerges.

From what has been ſaid, it is evident that neither this, nor the preceding juriſdiction, has any general temperature, the degree of cold and heat depending on the ſituation; and that to this difference is owing the delightful, and even profitable variety of all kinds of fruits and grains, each finding here a temperature agreeable to its nature. Accordingly, in travelling only half a day, you paſs from a climate where the heat ſufficiently indicates that you are in the torrid zone, to another where you feel all the horrors of winter. And what is ſtill more ſingular, and may be eſteemed an advantage, no change occurs during the whole year; the temperate parts never feeling the viciſſitudes of cold and heat. This, however, muſt be allowed not to hold preciſely with regard to the mountainous parts, the coldneſs of which is encreaſed by the violence of the winds, or a change of weather, called tiempo de paramos, when the clouds involve the greateſt part of theſe mountains, and precipitate themſelves in a ſleet; at which time the cold becomes intolerable: and on the other hand, when thoſe frigorific clouds are diſperſed, and the wind allayed, ſo that the rays of the ſun reach the earth, they feel the comfortable heat of his cheering beams.

Moſt of theſe villages are built with very little regularity. The principal part of them is the church and parſonage, which they call the convent, from the prieſts being all formerly religious. Theſe ſtructures have ſome appearance of decency: but the other parts of the village conſiſt of a number of huts with mud walls, ſcattered all over the country, where every one has his ſpot of ground, which he tills for his ſubſiſtence. A great part, and in ſome villages the whole of the inhabitants are Indians, who live there when out of place; though in ſome parts the inhabitants are Meſtizos, and here and there a Spaniſh family; but theſe are extremely poor.

IV. The firſt juriſdiction to the ſouthward of that of Quito, is the aſſiento of Latacunga. The word Aſſiento implies a place leſs than a town, but larger than a village. This place ſtands in a wide plain, having on the eaſt ſide the eaſtern Cordillera of the Andes, from whence projects a very high mountain, and at a ſmall diſtance from its foot is ſituated Latacunga, in $0^{\circ}\ 55'\ 14''\ 30'''$, ſouth latitude. On the weſt ſide of it is a river, which, though ſometimes fordable, on an increaſe of the waters muſt be paſſed over by the bridge. This aſſiento is large and regular; the ſtreets broad and ſtraight; the houſes of ſtone, arched, and well contrived: but on account of the dangerous conſequences ſo often reſulting from earthquakes, without any ſtory. This precaution the inhabitants were taught by a dreadful deſtruction of all the buildings, on the 20th of June 1698. This terrible concuſſion was general all over the province of Quito; and its effects, as we ſhall ſhow in the ſequel, in many other places, equally melancholy. Out of ſix hundred ſtone houſes, the number of which this aſſiento then conſiſted, only a part of one, and the church of the Jeſuits, were left ſtanding; and even theſe were ſo greatly damaged, that there was a neceſſity for pulling them down. But the greateſt misfortune was, that moſt of the inhabitants were buried under their ruins, the earthquake beginning at one in the morning, a time of general ſilence and ſecurity, and continuing its concuſſions, at ſhort intervals, the greateſt part of the day.

The ſtone of which the houſes and churches are built, is a kind of pumice, or ſpongy ſtone, ejected from volcanoes, inexhauſtible quarries of it being found in the neighbourhood. It is ſo light that it will ſwim in water, and from its great poroſity the lime cements the different pieces very ſtrongly together; whence, and from their lowneſs, the houſes are now enabled to ſupport themſelves during a concuſſion, much better than before the earthquake, when few were without a ſtory; and if they ſhould be unfortunately thrown down, the cruſh in all probability would be much leſs fatal.

The juriſdiction contains theſe principal villages:

I. Zichios Mayor.
II. Zichios Menor.
III. Yungas, or Colorados.
IV. Yfilimbi.
V. Chifa-Halo, or Toacafo.
VI. Pillaro.
VII. San Phelipe.
VIII. Mula-Halo.
IX. Alaquez.
X. San Miguel de Molleambato.
XI. Saquifili.
XII. Pugili.
XIII. Tanicuchi.
XIV. Cuzubamba.
XV. Tifaleo.
XVI. Angamarca.
XVII. Pila-Halo.

The air of this aſſiento is the colder, from the place being only ſix leagues from the mountain of Cotopaxi, which, as it is not leſs in height and extent than thoſe of Chimborazo and Cayamburo, ſo it is, like them, covered with ice and ſnow. The combuſtible ſubſtances within the bowels of this mountain, firſt declared themſelves in the year 1533, when Sebaſtian and Belalcazar, who undertook the conqueſt of this province, had entered it, and proved very favourable to the enterpriſe. For the Indians, poſſeſſed with the truth of a prediction of their prieſts, that, on the burſting of this volcano, they would be deprived of their country, and reduced under the government of an unknown prince, were ſo ſtruck with the concurrence of the burſting of this volcano, and the invaſion of a foreign army, that the ſpirit, which univerſally began to ſhow itſelf in the preparatives every where made for a vigorous reſiſtance, entirely left them, and the whole province eaſily conquered, all its caciques ſubmitting to the King of Spain. The large plain in which this aſſiento ſtands is full of rocks, ejected at that ſuppoſed ominous eruption, and ſome of them to the diſtance of five leagues from its roots. In the year 1743, while we were on the coaſt of Chili, a ſecond eruption happened, the particulars of which we ſhall relate in another place.

The temperature of the air is very different in the ſeveral villages of this juriſdiction; being hot in thoſe lying in the valleys; temperate in thoſe ſituated on the plains; whilſt the air in thoſe bordering on the mountains, like that of the aſſiento, is cold, and ſometimes to an exceſſive degree. The villages are in general larger, and more populous than thoſe of the other juriſdictions in the ſame province. Their inhabitants are Indians, Meſtizos, and a few Spaniards.

Beſides the pariſh church, which is ſerved by two prieſts, one for the Spaniards, and the other for the Indians, this aſſiento has convents of Franciſcans, Auguſtines, Dominicans, the Fathers of Mercy, and a college of Jeſuits. The churches of theſe religious are well built, decently ornamented, and kept very neat. The inhabitants, by the neareſt computation, amount to between ten and twelve thouſand, chiefly Spaniards and Meſtizos. Among the former are ſeveral families of eminent rank and eaſy circumſtances, and of ſuch virtues and accompliſhments as add a luſtre to their happy ſituation. The Indians, as at Quito, live in a ſeparate quarter adjoining to the country.

In this aſſiento all kinds of trades and mechanic arts are carried on; and, as in all the other parts of this juriſdiction, it has a conſiderable number of manufactories of cloth, bays, and tucuyos. Great quantities of pork are ſalted here for exportation to Quito, Guayaquil, and Riobamba, being highly eſteemed for the peculiar flavour given to it in the pickling, and which it ever after retains.

All

All the neighbouring country is ſowed with clover, and interſperſed with plantations of willows, whoſe perpetual verdure gives a cheerful aſpect to the country, and heightens the pleaſantneſs of the aſſiento.

The Indians of Pugili and Saquiſili are noted for making earthen ware, as jars, pans, pitchers, &c. which are greatly valued all over the province of Quito. The clay of which they are made is of a lively red, very fine, and emits a kind of fragrancy, and the workmanſhip very neat and ingenious.

V. The next juriſdiction ſouthwards is Riobamba, the capital of which is the town of the ſame name. Its juriſdiction is divided into two departments; the corregidor, who reſides at Riobamba, appointing a deputy, who lives at the aſſiento of Hambato, ſituated between the capital and Latacunga. In the firſt department are the following principal villages:

I. Calpi.
II. Lican.
III. Yaruquiz.
IV. San Luis.
V. Cajabamba.
VI. San Andres.
VII. Puni.
VIII. Chambo.
IX. Quimia.
X. Pungala.
XI. Lito.
XII. Guano.
XIII. Hilapo.
XIV. Guanando.
XV. Penipe.
XVI. Cubijis.
XVII. Cevadas.
XVIII. Palactanga.

The department of the aſſiento of Hamberto has, in its juriſdiction, ſix principal villages:

I. Iſambo.
II. Quiſupincha.
III. Quero.
IV. Pelileo.
V. Patate.
VI. Santa Roſa de Pilaguin.

This aſſiento ſtands in the latitude of 1° 41′ 40″ ſouth, and 22′ weſt, of the city of Quito. In 1533 it was an Indian town, of which Sebaſtian de Belalcazar having made himſelf maſter, the following year Marſhal Diego de Almagro laid the foundation of the preſent aſſiento. It ſtands in a very large plain ſurrounded by mountains; particularly on the north ſide, which is bounded by Chimborazo, from the foot of which it is at no great diſtance. On the ſouth ſide is a lake called Colta, about a league in length and three quarters of a league in breadth, where there are great numbers of wild geeſe and gallaretas; and its banks covered with plantations.

The principal ſquare and ſtreets are very regular, ſtraight, and airy; the houſes of a light ſtone, but ſomething heavier than the pumice made uſe of at Latacunga. Some, eſpecially thoſe in and near the ſquare, have a ſtory; but the others are univerſally without any, being built low, on account of the earthquakes which this place has often felt, particularly that already mentioned of 1698, when many of its houſes and public buildings were thrown down. The Indians who inhabited this place, and all thoſe to the ſouthward in this juriſdiction, before their converſion to Chriſtianity, were known by the name of Puruayes; and are to this day diſtinguiſhed from all the other Indians in the whole province.

Beſides the great church, here is another called St. Sebaſtian, with convents of the ſame orders as at Latacunga, and a nunnery of the Conception; contributions are ſtill

raiſed for the uſe of the hoſpital, though it is in ſo ruinous a condition as not to admit of patients.

On the weſt ſide of the aſſiento is a river cut into ſmall channels or trenches, for watering the adjacent fields; by which means they are rendered ſo remarkably fertile, that they produce clover the whole year.

The inhabitants, according to an accurate calculation, amount to between ſixteen and twenty thouſand ſouls. The manners and cuſtoms here are nearly the ſame with thoſe at Quito; the greateſt part of the families of diſtinction in that city owing their origin to this place. For at the beginning of the conqueſts, many of the eminent families which came from Spain ſettled here at the concluſion of the war, and have been very careful not to diminiſh either the luſtre of their families, or their wealth, by promiſcuous alliances, marrying only into one another.

The magiſtracy conſiſts of regidores, who are always perſons of the firſt diſtinction, and from among thoſe are annually choſen the ordinary alcaldes; with this ſingularity, that the validity of the election depends on its being unanimous, a ſingle vote rendering it void. Beſides, the perſon thus elected is either confirmed or rejected by the townſmen; a privilege known in no other part of the whole province.

The air is colder here than at Quito, owing in a great meaſure to the neighbourhood of the mountain of Chimborazo; and, when the wind blows from that quarter, the weather is ſo ſharp, that the rich families leave the town, and retire to their eſtates, ſituated in a warmer air, though at no great diſtance. This uncomfortable ſeaſon generally laſts from December to June, the north and north-weſt winds then principally prevailing. It is, however, in a great meaſure, free from thoſe violent ſhowers and tempeſts ſo common at Quito, that ſometimes for many days ſucceſſively it enjoys ſerene and delightful weather; and the ſame may be ſaid of the greateſt part of its juriſdiction.

Here are many plantations, or farms, and moſt of them conſiderable; and for the number and largeneſs of its manufactories, it ſurpaſſes every other part of this province; though the Indians ſeem born with an inclination for weaving, particularly thoſe of the village of Guana, who are famed for their manufactures of worſted ſtockings, and it is indeed the only place in the whole province where they are made. This induſtrious diſpoſition probably gave riſe to the large flocks of ſheep in this juriſdiction, whence theſe manufactories are never in want of wool. The ſoil is very fertile, producing all kinds of grain and pulſe in abundance. And here is moſt frequently ſeen what I have elſewhere obſerved, that in one part the huſbandmen are ſowing, in another reaping; the landſcape alſo elegantly adorned with ſuch an enchanting variety of colours as painting cannot expreſs.

In this juriſdiction is a large plain lying ſouth of the town of Tiocaxas, and famous for a battle between the Spaniards commanded by Belalcazar and the Puruayes Indians, before their courage had been depreſſed by the ominous exploſion of the mountain. Both armies fought with great obſtinacy, though neither gained the victory.

The aſſiento of Hambato ſtands in a wide plain at the bottom of a mountain. On the north ſide of it runs a large river, over which a bridge has been built, it being never fordable on account of its depth and extreme rapidity. It is finely ſituated, and in extent and populouſneſs nearly equal to Latacunga, the number of its inhabitants amounting to eight or nine thouſand. The houſes are of unburnt bricks, well contrived, and make a good appearance. With regard to their lowneſs, it is owing to a diſcreet precaution againſt the melancholy ſhocks of earthquakes. It has a pariſh-church, two chapels of eaſe, and a convent of Franciſcans. The earthquake which made

made ſuch terrible havock in the aſſiento of Latacunga, proved alſo fatal to this. The earth near it opened in ſeveral places, of which there ſtill remains an aſtoniſhing monument on the ſouth ſide of the aſſiento, being a chaſm four or five feet broad, and about a league in length, north and ſouth. And on the north ſide of the river are ſeveral openings of the ſame kind. The horror of the ſhock was greatly increaſed by terrible eruptions from Mount Carguairaſo, from whence a muddy torrent, formed of aſhes, cinders, and ſnow melted by the flames from the aperture, precipitated down the ſides of the mountain, overflowing the fields, ſweeping away the cattle, and every other object, by its violence. A track of this impetuous current is ſtill to be ſeen on the ſouth ſide of the aſſiento.

The inhabitants in their manners and cuſtoms reſemble thoſe of Quito; but with regard to families of diſtinction, it is much inferior to Riobamba. Courage is an innate quality of the natives, but blended with ſuch vices, that both their neighbours, and the inhabitants of the other parts of the province, will have no concerns with them, except thoſe abſolutely neceſſary; and, in all dealings with them, take care to guard equally againſt their deceit and violence.

This juriſdiction in ſeveral of its products and manufactures excels all the reſt: one of which is bread, particularly that made at the aſſiento, which is famous all over the province; and accordingly it is ſent to Quito, and other parts, without loſing any thing of its goodneſs by length of time. The Indian inhabitants of the village of Quero make all ſorts of cabinet work, for which there is a great demand all over the province, as, beſides the goodneſs of the workmanſhip, this is the only place where goods of this kind are made. The juriſdiction of Patate is equally famous for the plenty of ſugar canes, and the goodneſs of the ſugar made from them, being of the fineſt ſort. That of Santa Roſa de Pilaguin, which, with its fields, lies on the ſide of Carguairaſo, is famous for the particular goodneſs of its barley, as the diſtrict bordering on the aſſiento is for the exquiſiteneſs of its fruits; and to this diſtrict Quito owes moſt of the European kinds ſold in that city, the temperature of the air being peculiarly adapted to the perfection of thoſe fruits.

VI. On the weſt ſide of the juriſdiction of Riobamba, between it and Guayaquil, lies that of Chimbo, whoſe juriſdiction conſiſts of an aſſiento and ſeven villages: the former, being the capital, is called Chimbo, and was the reſidence of the corregidor, till it was thought proper, for the conveniency of commerce, to remove it to Guaranda. This aſſiento does not contain above eighty families; ſome of which are Spaniards, but all poor. The names of the villages are,

I. San Lorenzo.
II. Aſaneoto.
III. Chapacoto.
IV. San Miguel.
V. Guaranda.
VI. Guanujo.
VII. Tomabelas.

The moſt conſiderable of their villages is that Guaranda, though the inhabitants are generally Meſtizos; there are ſome Indians, but very few Spaniards.

The juriſdiction of Chimbo, being the firſt of the Serrania, or ridge of mountains, bordering on that of Guayaquil, carries on, by means of innumerable droves of mules, the whole trade of Quito and the other provinces, by the way of Guayaquil, carrying the bales of cloth, and ſtuffs, together with the meal, corn, and other products of the country, from the former to the latter; and returning with wine, brandy, ſalt, cotton, fiſh, oil, and other goods wanted in the provinces of the mountains. This traffic

traffic is of inconceivable benefit to the inhabitants; but it can only be carried on during the ſummer, the roads in the winter being abſolutely impracticable to beaſts of any kind. This intermiſſion of trade they call 'Cerrarſe la Montana,' the ſhutting up of the mountains.

The temperature of the air at Guaranda, and that of the greateſt part of the juriſdiction of Chimbo, from the proximity of Chimborazo, ſo often mentioned for its frigorific effects, is very cold. The country is large and fertile, like thoſe already mentioned; but the haçiendas, or farms, are in general appropriated to the breeding of mules; a few only being ſown with different ſpecies of grain.

VII. The juriſdiction of Guayaquil is the laſt; but this has been already treated of at large.

CHAP. II. — *Sequel of the Account of the Juriſdictions in the Province of Quito.*

VIII. THE juriſdiction bordering on the ſouthern parts of Riobamba is that of Cuenca, whoſe capital is the city of the ſame name, founded in the year 1557, by Gil Ramirez Davalos. Its juriſdiction is divided into two departments, of which the capital is one, and that of Alauſi the other; the laſt reaches to Riobamba, and is governed by a deputy of the corregidor. Beſides the aſſiento, it contains only the four following villages:

I. Chumche.
II. Guaſuntos.
III. Cibambe.
IV. Ticſan.

But that of the city of Cuenca includes ten:

I. Azogues.
II. Atuncanar.
III. Giron.
IV. Canary-bamba.
V. Eſpiritu.
VI. Paccha.
VII. Gualaſeo.
VIII. Paute.
IX. Delec.
X. Molleturo.

The city of Cuenca lies in 2° 53′ 49″ ſouth latitude, and 29′ 25″ weſt of the meridian of Quito. It ſtands in a very ſpacious plain, along which, at about half a league to the northward of the city, runs a little river called Machangara; and cloſe to the ſouth ſide of the city runs another, known by the name of Matadero. Beſides theſe, at the diſtance of a quarter of a league, runs another called Yanuncay; and at about the ſame diſtance is another termed Los Banos, from a village of that name, through which it flows. All theſe rivers are at ſome ſeaſons fordable; but at others can only be croſſed with ſafety over the bridges.

The plain in which this city ſtands reaches about ſix leagues from north to ſouth; and the four rivers, whoſe courſes are nearly in the ſame direction, form, at a ſmall diſtance, by the conflux of their ſtreams, a very large river. To the ſouth of the city is another plain of about two leagues in extent, and, with its great variety of regular plantations of trees, and other rural improvements, makes a very delightful appearance all the year round.

This city may be claſſed among thoſe of the fourth order. Its ſtreets are ſtraight, and of a convenient breadth; the houſes of unburnt bricks, tiled, and many of them

have one ſtory, the owners, from a ridiculous affectation of grandeur, preferring elegance to ſecurity. The ſuburbs, inhabited by the Indians, are, as uſual, mean and regular. Several ſtreams of water, by great labour, are brought from the above rivers, and flow through the ſtreets; ſo that the city is plentifully ſupplied; and for its admirable ſituation, and the fertility of the ſoil, it might be rendered the paradiſe, not only of the province of Quito, but of all Peru; few cities being capable to boaſt of ſo many advantages as concentre here; but, either from ſupineneſs or ignorance, they are far from being duly improved. One circumſtance, which adds a ſingular beauty to its ſituation, is, that the mountains are not ſo high as to intercept the view of a beautiful country; but at a proper diſtance they riſe again to their ſtupendous height, as is ſeen in the mountain Azuay, which divides this juriſdiction from that of Alauſi.

Cuenca contains three pariſhes; that of the great church conſiſts of Spaniards and Meſtizos; the two others, which are called San Blas and San Sebaſtian, are for the Indians. Here are convents of Franciſcans, Dominicans, Auguſtines, and the Fathers of Mercy; a college of Jeſuits, and two nunneries, one of the Conception, and the other of Santa Tereſa. Here is alſo an hoſpital, but through ill management now almoſt in ruins.

The magiſtracy is compoſed of regidores and ordinary alcaldes, which, according to the general cuſtom, are choſen annually, and at their head is the corregidor. Here is a chamber of finances, under the direction of an accomptant and treaſurer. It was formerly kept in the city of Sevilla del Oro, a juriſdiction, and the capital of the department of Macas; but on the loſs of the city of Logrono, the village of Cuambaya and other places, it was removed to Loja, and ſince to Cuenca. The revenues paid into it conſiſt of the tribute of the Indians of this department, together with that of Alauſi, the juriſdiction of Loja, and the government of Jean de Bracamoros; the duties on proviſions, and the cuſtoms collected at Naranjal.

The inhabitants here, though of the ſame claſſes with thoſe of Quito, differ ſomething in their genius and manners; particularly in a moſt ſhameful indolence, which ſeems ſo natural to them, that they have a ſtrange averſion to all kinds of work; the vulgar are alſo rude, vindictive, and, in ſhort, wicked in every ſenſe. From this general reproach, the women muſt, however, be excepted, being remarkable for an uncommon ſpirit of induſtry; as if they were determined to atone for the indolence of the other ſex. They ſpin and weave bays, which, for their goodneſs, and eſpecially the brilliancy of the colours, are famous in every part of Peru. They alſo weave ſome tucuyos; and make bargains with the merchants or traders. They buy and ſell; and, in ſhort, manage entirely that little commerce by which their families are ſupported; whilſt their huſbands, brothers, and fathers, give themſelves up to ſloth and idleneſs, with all its infamous concomitants. The whole number of inhabitants of this city is computed at twenty or thirty thouſand ſouls; and both thoſe of the city and of the juriſdiction are commonly known by the general name of Morlacos.

The pleaſures ariſing from the fertility of the ſoil are increaſed by the mildneſs of the climate, the liquor of the thermometer fluctuating the whole year between 1013 and 1015; ſo that the cold is very little felt, and the heat very ſupportable. With regard to rains, and tempeſts of thunder and lightning, they are as common here as at Quito. In calm weather, the ſky is ſerene, and the inhabitants healthy; nor are malignant fevers and pleuriſies, though common to the whole province, ſo often known as at Quito. The country is finely interſperſed with farm-houſes and plantations of ſugar canes; ſome parts are cultivated for corn, and others applied to the feeding of ſheep and horned cattle, from the laſt of which they make great quantities of cheeſe, not

inferior to that of Europe; and accordingly there is a very conſiderable demand for it all over theſe parts.

The village of Atun-canar, or Great-canar, is famous for its extenſive corn fields, and the rich harveſt they afford. It is alſo remarkable for the riches concealed in its mountains, the bravery of its ancient inhabitants, and their unſhaken loyalty to Ynca Tupac-Yupanqui, to whom, when his army intended for this country was arrived near the frontiers, ſenſible of their inability of making any effectual reſiſtance, they ſubmitted, and paid him all the honours which denoted a voluntary ſubjection; and theſe marks of loyalty ſo prepoſſeſſed the emperor in their favour, that, to encourage them to cheriſh ſuch good diſpoſitions, he ordered ſeveral magnificent temples, ſplendid palaces, and forts, all of ſtone, to be built here, in the manner of thoſe of Cuſco, and the inſide of the walls to be plated over with gold. And of theſe works ſome monuments ſtill remain in a fort and palace, and of which neither time nor accidents have obliterated their aſtoniſhing magnificence; a deſcription will be given of both in another place. Theſe works had ſuch happy effects on the grateful inhabitants, that they fell at laſt victims to their loyalty; for, having ſided with the Ynca Hueſcar, their lawful ſovereign, againſt his brother Ata Huallpa, and the former loſing a deciſive battle, the conqueror inhumanly abuſed his victory, by deſtroying thoſe unhappy perſons who had done no more than their duty, no leſs than 60,000 of them being maſſacred in cold blood.

Theſe Indians were united with the Guaſantos, and thoſe of Pamallacta, in which diſtrict are ſtill to be ſeen the ruins of another fort, built by the Yncas. The intimacy between the inhabitants of theſe countries was ſo remarkable, that they were all called Canarejos, that under one name they might form one body.

The aſſiento of Alauſi, the chief place of the ſecond department, is not very populous, though among its inhabitants are ſome Spaniſh families of the firſt rank. The other inhabitants are Meſtizos and Indians, but both claſſes in mean circumſtances. The parochial church is the only eccleſiaſtical ſtructure; nor has this the ornaments which decency requires.

The village of Ticſan, which ſtood in this department, was totally deſtroyed by an earthquake, and the inhabitants removed to a ſafer ſituation. The marks of theſe dreadful convulſions of nature are ſtill viſible in ſeveral chaſms among the mountains, many being two or three feet broad, a convincing proof of the violent concuſſions in the bowels of the earth at the time of that cataſtrophe. The temperature of the air is here ſomething colder than at Cuenca; but not in a degree ſufficient to leſſen the exuberant fertility of the ſoil.

Among the great variety of mines in the juriſdiction of Cuenca, and which I ſhall conſider more at large in the ſequel, thoſe of gold and ſilver, according to the common opinion, are not the leaſt numerous. Report has indeed magnified them to ſuch a degree, that, to prove the aſtoniſhing quantity of thoſe metals, the inhabitants relate the following ſtory, the truth of which I do not pretend to warrant. It exhibits indeed an inſtance ſo contrary to the common order of things, as to be ſcarce reconcileable to reaſon. I ſhall, however, venture to relate it, becauſe, if the reader ſhould think it incredible, it will at leaſt ſerve to convey an idea of the riches ſuppoſed to be concealed in the bowels of the mountains.

Between the valleys of Chugui-pata, which extend from the village and juriſdiction of Los Azogues ſouthward, and that of Poute running eaſtward along the banks of the ſame name, are ſeveral eminences which divide the two plains, and among theſe, one higher than the reſt, called Supay-urco, a name ſaid to have been given it on the

following account. An inhabitant of the province of Eſtramadura in Spain, from the extremity of his diſtreſs, abandoned himſelf to deſpair; and, in the phrenzy of his wild imagination, ſometimes implored the aſſiſtance of Satan, and ſometimes curſed the moment that gave birth to his wretched being, and was for laying violent hands upon himſelf. The devil, taking advantage of his condition, appeared to him, but in a dreſs which ſufficiently concealed his nature, and courteouſly aſked the cauſe of his exceſſive melancholy; and, being informed that it was owing to an unhappy change of circumſtances, from a plentiful fortune to the moſt extreme poverty, the devil, with a cheerful air, told him, that he would ſhow him a ſpot from whence he might have what quantity of gold he pleaſed, the mine being abſolutely inexhauſtible. The Spaniard embraced the offer with the greateſt tranſport of joy; and concluding that it would at leaſt prove a journey of ſome days, purchaſed, with the penurious remains of his ſubſtance, a few loaves, which he packed up in his wallet; and, his mind being ſomething eaſier from theſe flattering promiſes, laid himſelf down to reſt till the time appointed, when he was to call upon his guide. But when he awaked, he found himſelf in a country abſolutely unknown, the plain of Chiquipata lying before him, and himſelf reclined on the eminence of Supay-urco. His aſtoniſhment, at viewing ſuch multitudes of ſtrange objects, can be much better conceived than expreſſed. For ſome time indeed he doubted whether they were real or illuſive, till tired with uncertainties, and, determined to know in what country he was, he directed his way to a houſe of ſome figure, which he ſaw at a diſtance. This happened fortunately to belong to a Spaniard, who was a native of the ſame province of Eſtramadura; and being informed by his ſervants that a ſtranger of the ſame country was at the gate, the maſter, pleaſing himſelf with the hopes of hearing ſome news from his native land, ordered him to be brought in, received him with great marks of friendſhip, and, being at breakfaſt, made him ſit down with him, and began to enter on the pleaſing inquiry after his friends and relations; but his gueſt taking out one of his loaves, which the gentleman knew was baked in Spain, and finding it quite new, was ſo loſt in aſtoniſhment, that he forgot both his breakfaſt and relations, inſiſting (though afraid to hear) that his apparent countryman ſhould inform him how it was poſſible to make ſo long a voyage in ſo ſhort a time. The other readily ſatisfying his deſire, they both agreed that this muſt have been an action of that enemy to mankind, who had brought the poor Spaniard thither to enrich himſelf from the treaſures concealed in the bowels of the hill on which he had laid him; and, ever ſince, it has been called Supay-urco, or the Devil's Hill. This ſtory is well known throughout all the juriſdiction of Cuenca, even the children are acquainted with it; and father Manuel Rodriguez, in his "Hiſtoria del Maranon, y Amazonas, lib. ii. cap. 4." mentions it. From all which, it may be inferred, that it is, in reality, of as ancient a date as the inhabitants of Cuenca pretend; that it has deſcended through a long ſeries of time without alteration; and from this ſtory, though deſtitute of proof, the notion that this hill contains an inexhauſtible treaſure had its riſe.

IX. The laſt juriſdiction of the province of Quito, on this ſide, is that of Loja, the capital of which is called by the ſame name, and was founded in the year 1546, by Captain Alonſo de Mercadillo. It reſembles, in extent, form, and buildings, the city of Cuenca; but the temperature of the air is conſiderably hotter. In its diſtrict are the following fourteen villages:

I. Saraguro and Ona.
II. San Juan del Valle.
III. Zaruma.
IV. Yuluc.
V. Guachanana.
VI. Gonzanama.
VII. Cariumanga.

VII. Cariumanga.
VIII. Zororonga.
IX. Dominguillo.
X. Catacocha.
XI. San Lucas de Amboca.
XII. El Sifne.
XIII. Malacatos.
XIV. San Pedro del Valle.

LOJA, beſides two churches, has ſeveral convents, a nunnery, a college of Jeſuits, and an hoſpital.

In the territory of this juriſdiction is produced that famous ſpecific for intermitting fevers, known by the name of Caſcarilla de Loja, or Quinquina. Of this ſpecific there are different kinds, one of which is more efficacious than the others. M. de Juſſieu, whom I have already had occaſion to mention more than once, being ſent to make botanical obſervations, and take care of the health of the academicians, took the trouble of making a journey to Loja, purely to examine the tree which produces it; and in a full deſcription, which he drew up for the ſatisfaction of botaniſts and other curious perſons, enters, with his known ſkill and accuracy, into a very minute diſtinction of the ſeveral ſpecies, and enumerates the ſmalleſt circumſtances. At the ſame time, he was pleaſed to inform the corregidor of the differences, and to inſtruct the Indians employed in cutting it to diſtinguiſh each ſpecies, that the beſt ſort only might be ſent unmixed to Europe. Nor was this all; he farther inſtructed them how to make an extract of it, and prevailed on the inhabitants of that territory to uſe it, where its virtues had till that time been neglected, though intermitting fevers are there as common as in any other parts. Before he undeceived them, the natives imagined that it was exported to Europe only as an ingredient in dyeing; and, though they were not entirely ignorant of its virtues, they made no uſe of it, little imagining that a ſimple of ſo hot a nature could be good for them. But this ingenious phyſician convinced them of their miſtake by many happy effects; ſo that, now, it is generally uſed in all kinds of fevers: and perſons of undoubted veracity, who have ſince viſited Loja, have given me very pleaſing accounts of its ſalutary effects.

The tree which produces the caſcarilla is not of the largeſt ſize, its uſual height being about two toiſes and a half, and the body and branches of a proportionate thickneſs. In this, however, there is ſome difference, and in that conſiſts the goodneſs of the caſcarilla, the largeſt branches not yielding the beſt. There is alſo a difference both in the bloſſom and ſeed. The Indians, in order to take off the caſcarilla or cortex, cut down the tree; after which, they bark it, and dry the quinquina. There are here large and thick foreſts of this tree; but notwithſtanding this, there is a very ſenſible diminution of them, occaſioned by the Indians not ſowing the ſeed; thoſe which grow ſpontaneouſly not being by any means equal to thoſe which have been cut down.

In the juriſdiction of Cuenca have alſo been diſcovered many woody parts, in which this valuable tree is found: and when I was in that country, a prieſt at Cuenca procured a large quantity of caſcarilla, and ſent it to Panama, the only place from whence it is exported. This inſtance, together with his aſſurances that it was of the ſame kind with that of Loja, induced ſeveral of the inhabitants of Cuenca to attempt the diſcovery, and were ſoon convinced that the juriſdiction contained large foreſts of this tree, which had been neglected by them, whilſt their neighbours reaped no ſmall advantages from it.

The juriſdiction of Loja has alſo a very great advantage from breeding the cochineal, and which intelligent perſons reckon of equal goodneſs with that of Oaxaca in New Spain; but the inhabitants are ſo far from applying themſelves to the breeding of that inſect, ſufficient to ſupply the demands of a particular trade, that they breed no more than

than what they imagine will be ſufficient for the dyers in that and the neighbouring juriſdiction of Cuenca. To this elegant and laſting colour it is probably owing that the bays of Cuenca, and the carpets of Loja, are preferred to all others: though the beauty of the colours may in ſome meaſure proceed from the ſuperior ſkill of the workmen of Loja and Cuenca, over thoſe of Quito and other parts of the province where the ſame goods are manufactured. The cochineal is alſo bred in the department of Hambato, though without any conſtant gatherings of that inſect. It is not, however, to be doubted, but that a more careful attention would enſure them the ſame ſucceſs in great as in ſmall quantities.

Having mentioned this inſect, ſo highly valued in every part of the world for the incomparable beauty of its red, which it equally communicates to wool, ſilk, linen, and cotton, it may be expected that I ſhould give ſome farther account of it; and as I ſhould be ſorry to diſappoint any rational curioſity of my readers, and at the ſame time to inſert any thing that is not ſtrictly true, I was unwilling to rely wholly on my own experience; together with the accounts I procured at Loja and Hambato, eſpecially as Oaxaca is the principal place where this inſect is produced, I made it my buſineſs to conſult perſons well acquainted with the ſubject, and received the following account, in which they all unanimouſly agreed.

The cochineal is bred on a plant known in Oaxaca, and all thoſe parts where it abounds, by the name of Noſpal *, or Nopalleca, the Indian fig-tree, which, except in the difference of the foliage, reſembles the tunos, ſo common in the kingdom of Andaluſia. The leaf of the tuna being broad, flat, and prickly; and that of the nopal, oblong, with ſeveral eminences; and inſtead of ſpines, has a fine ſmooth membrane, of a fine permanent and lively green.

The method of planting the nopal is by making rows of holes, about half a yard deep, and about two yards diſtant from one another. In each of theſe holes is placed one or two leaves of the nopal, in a flat poſition, and then covered with earth. This leaf ſoon after ſhoots up into a ſingle ſtem, which during its growth divides into ſeveral branches, and theſe ſucceſſively produce freſh leaves, the largeſt being neareſt to the ſtem, which is full of knots, as are alſo the branches, and from theſe the leaves have their origin. The uſual height of this plant is about three yards, which it ſeldom exceeds. The ſeaſon when the nopal diſplays all its beauty and vigour is, like that of other plants, from the ſpring to the autumn, which at Oaxaca, and other parts of North America, is at the ſame time as in Spain. Its bloſſom is ſmall, of a bright red, and in the ſhape of a bud, from the centre of which proceeds the tuna, a name given to its fruit; and as this increaſes, the bloſſom fades, till at length it falls. When the tuna, or fig, is ripe, the outward ſkin becomes white; but the pulp is ſo fully impregnated with a deep red, that it tinges of a blood colour the urine of thoſe who eat it; a circumſtance of no ſmall uneaſineſs to thoſe who are unacquainted with this particular. Few fruits, however, are either more wholeſome or pleaſant.

The ground where the nopal is intended to be planted muſt be carefully cleanſed from all kinds of weeds, as they drain the ſoil of thoſe juices which the nopal requires. Alſo after the cochineal is taken from the plant, which is never done till the inſects are arrived at perfection, all the ſuperfluous leaves are plucked off, that they may be ſucceeded by others the following year. For it muſt be obſerved, that the

* This plant is called by botaniſts, *Opuntia maxima, folio oblongo rotundo majore, ſpinulis obtuſis mollibus et innocentibus obſito, flore ſtriis rubris variegato.* Sloane's Catalogue.

cochineal

cochineal which are bred on young plants thrive much better, and are of a finer quality, than thoſe produced on ſuch as have ſtood ſome years.

The cochineal was formerly imagined to be a fruit or ſeed of ſome particular plant; an error which probably aroſe from an ignorance of the manner in which it is propagated; but, at preſent, every one is convinced of its being an inſect, agreeably to its name, ſignifying a wood-louſe, which generally breeds in damp places, eſpecially in gardens. Theſe inſects, by rolling themſelves up, form a little ball, ſomething leſs than a pea, and in ſome places are known by the name of Baquilas de San Anton, i. e. St. Anthony's little cows: and ſuch is the figure of the cochineal, except that it has not the faculty of rolling itſelf up; and its magnitude, when at its full growth, does not exceed that of a tick, common in dogs and other animals.

Theſe inſects breed and are nouriſhed on the nopals, where their eggs are placed among the leaves; the juice of the plant, which is their ſole nouriſhment, becomes converted into their ſubſtance; when, inſtead of being thin and wateriſh, and, to all outward appearance, of little or no uſe, it is rendered a moſt beautiful crimſon colour. The plant is in May or June in its moſt vigorous ſtate, and at this favourable ſeaſon the eggs are depoſited; and in the ſhort ſpace of two months, from an animalcule, the inſect grows up to the ſize above-mentioned: but its infant ſtate is expoſed to a variety of dangers; the violent blaſts of the north wind ſweep away the eggs from the foliage of the plant: and, what is equally fatal to their tender conſtitutions, ſhowers, fogs, and froſts, often attack them and deſtroy the leaves, leaving the careful cultivator this only reſource, namely, that of making fires at certain diſtances, and filling the air with ſmoke, which frequently preſerve them from the fatal effects of the inclemency of the weather.

The breeding of cochineal is alſo greatly obſtructed by birds of different kinds, which are very fond of theſe inſects; and the ſame danger is to be apprehended from the worms, &c. which are found among the plantations of nopals: ſo that, unleſs conſtant care be taken to fright the birds away from the plantation, and to clear the ground of thoſe various kinds of vermin which multiply ſo faſt in it, the owner will be greatly diſappointed in his expectations.

When the inſects are at their full growth, they are gathered and put into pots of earthen ware; but great attention is requiſite to prevent them from getting out, as in that caſe great numbers of them would be loſt: though there is no danger of it, where they are at liberty on the nopal leaves, thoſe being their natural habitation, and where they enjoy a plenty of delicious food; for though they often remove from one leaf to another, they never quit the plant; nor is it uncommon to ſee the leaves entirely covered with them, eſpecially when they are arrived at maturity. When they have been confined ſome time in theſe pots, they are killed and put into bags. The Indians have three different methods of killing theſe inſects; one by hot water, another by fire, and a third by the rays of the ſun; and to theſe are owing the ſeveral gradations of the colour, which in ſome is dark, and in others bright; but all require a certain degree of heat. Thoſe, therefore, who uſe hot water are very careful to give it the requiſite heat, and that the quantity of water be proportioned to the number of inſects. The method of killing them by fire, is to put them on ſhovels into an oven, moderately heated for that intention; the fine quality of the cochineal depending on its not being over-dried at the time of killing the inſects: and it muſt be owned, that among the ſeveral ways made uſe of to deſtroy this valuable creature, that of the rays of the ſun ſeems to bid faireſt for performing it in the moſt perfect manner.

Beſides

Beſides the precaution requiſite in killing the cochineal, in order to preſerve its quality, it is equally neceſſary to know when it is in a proper ſtate for being removed from the leaves of the nopal; but, as experience only can teach the cultivator this neceſſary criterion, no fixed rule can be laid down. Accordingly, in theſe provinces where the cultivation of theſe inſects is chiefly carried on, thoſe gathered by Indians of one village differ from thoſe gathered in another; and even thoſe gathered by one perſon in the ſame village are often different from thoſe gathered by another; every individual adhering to his own method.

The cochineal inſect may in ſome circumſtances be compared to the ſilk worm, particularly in the manner of depoſiting its eggs. The inſects deſtined for this particular are taken at a proper time of their growth, and put into a box well cloſed, and lined with a coarſe cloth, that none of them be loſt. In this confinement they lay their eggs and die. The box is kept cloſe ſhut till the time of placing the eggs on the nopal, when, if any motion is perceived, it is a ſufficient indication that the animalcule has life, though the egg is ſo minute as hardly to be perceived; and this is the ſeed placed on the foliage of the nopal, and the quantity contained in the ſhell of a hen's egg is ſufficient for covering a whole plant. It is remarkable that this inſect does not, or at leaſt in any viſible manner, injure the plant; but extracts its nouriſhment from the moſt ſucculent juice, which it ſucks by means of its proboſcis through the fine teguments of the leaves.

The principal countries where the cochineal inſects are bred, are Oaxaca, Flaſcala, Ceulula, Nueva Gallicia, and Chiapa in the kingdom of New Spain; and Hambato, Loja, and Tucuman in Peru. And though the nopal thrives equally in all, yet it is only in Oaxaca that they are gathered in large quantities, and form a branch of commerce, the cultivation of theſe little creatures being there the chief employment of the Indians; whereas in others, where the inhabitants take but little trouble in their cultivation, they breed wild, and thoſe gathered in them are accordingly called Grana Sylveſtria *. Not that either the inſects or nopals are of different ſpecies; for with regard to the diſadvantageous difference between the colour of the wild cochineal and that of Oaxaca, it does not proceed from a difference of ſpecies, but for want of a proper care in its improvement; and were the culture every alike, this difference would no longer ſubſiſt. But the Indians neglect it, either becauſe no commerce of that kind has been opened among them; or from an averſion to the trouble and attention requiſite to bring thoſe inſects to perfection; or, laſtly, from the apprehenſion that the fruits of all their time and care may be deſtroyed by one of the above-mentioned accidents.

The temperature beſt adapted to the production of this inſect cannot be preciſely determined, there being in Oaxaca, as well as in the province of Quito, parts of very different temperatures, ſome hot, ſome temperate, and others cold; yet all breed the cochineal. It is, however, very probable, that the moſt proper climate is the temperate and dry; becauſe in theſe the nopal thrives the beſt. And agreeably to this obſervation it is remarked, that Hambato and Loja are the countries in the province of Quito where they moſt abound; though they are alſo ſeen in other parts, where both the heat and cold are greater.

Here I cannot help obſerving, that Andaluſia in Spain appears to me extremely well ſituated for breeding cochineal, both from the nature of the climate, and the plantation of fig trees, which there attain ſo great perfection. Here alſo neither froſts, fogs, or ſnows, are to be apprehended, particularly in ſpring; and the happy medium between cold and heat is, as I have before obſerved, that which this creature is particularly fond of.

* This wild cochineal is generally known in England by the name of cochineal meſtique.

The

The inhabitants of Loja, who are known all over this province by the name of Lojanos, do not exceed ten thouſand ſouls, though formerly, when the city was in its greateſt proſperity, they were much more numerous. Their character is much better than that of the inhabitants of Cuenca; and beſides their affinity in cuſtoms and tempers to the other villages, they cannot be branded with the character of being ſlothful. In this juriſdiction, ſuch numerous droves of horned cattle and mules are bred, that it ſupplies the others of this province, and that of Piura in Valles. The carpets alſo manufactured here are of ſuch remarkable fineneſs, that they find a ready ſale wherever they are ſent.

The corregidor of Loja is alſo governor of Yaguarſongo, and principal alcalde of the mines of Zaruma; and, as ſuch, a chair of ſtate is placed for him at all public ſolemnities of the church, where he is preſent; a diſtinguiſhing honour allowed only to the preſidents or governors of thoſe provinces. The poſt of governor of Yaguarſongo is at preſent a mere title without any juriſdiction; part of the villages which formed it being loſt by the revolt of the Indians, and the others added to the government of Jaen; ſo that the corregidor of Loja enjoys only thoſe honours intended to continue the remembrance of that government.

The town of Zeruma, in the juriſdiction of which are thoſe mines of gold I ſhall mention in another part, has preſented the corregidor of Loja with the title of its alcalde major. It was one of the firſt towns founded in this province, and at the ſame time one of the moſt opulent; but is at preſent in a mean condition, owing chiefly to the decay of its mines, on which account moſt of the Spaniſh families have retired, ſome to Cuenca, and others to Loja; ſo that at preſent its inhabitants are ſaid not to exceed ſix thouſand. The declenſion of theſe mines, which is not ſo much to be imputed to a ſcarcity of metal, as to the negligence of thoſe concerned in working them, has been diſadvantageous to the whole department of Loja; and conſequently diminiſhed the number of its inhabitants.

Having thus deſcribed thoſe nine juriſdictions which form the moſt wealthy part of the province of Quito, I ſhall, in the following chapters, treat of the governments.

CHAP. III. — *Account of the Governments of Popayan and Atacames, belonging to the Province of Quito.*

WE have already given a juſt account of every thing worthy notice in the juriſdictions within the audience of Quito. To render the narrative complete, it is neceſſary that we now proceed to the governments within the limits of that audience, as they jointly form the vaſt country of the province of Quito. And though they generally give the name of province to every government, and even to the departments into which both are ſubdivided, we ſhall not here follow this vulgar acceptation, it being in reality founded only on the difference of the notions of Indians who formerly inhabited this country, every one being governed by its curaca, or deſpotic ſovereign. Theſe nations the Yncas ſubdued, and obliged them to receive the laws of their empire; but the curacas were confirmed in all thoſe hereditary rights of ſovereignty compatible with the ſupreme prerogative. Were we indeed to uſe the name of province in this ſenſe, every village muſt be called ſo; for it may be eaſily ſhown, that in the time of heatheniſm, every village had its particular curaca: and ſometimes, as in Valles, in this juriſdiction of Popayan, in Maynas, and the Maragnon, there was not only a curaca in each

village, with all the appendages of government, but the inhabitants ſpoke a different language, had different laws and cuſtoms, and lived totally independent of each other. But theſe villages and ancient provinces being now comprehended under the juriſdiction of one ſingle tribunal; and thoſe which before were under a multitude of curacas acknowledging one ſovereign, and compoſing one province, where juſtice is adminiſtered to them in the name of the prince; and the governments being in juridical affairs dependent on the audience of Quito, they can only be conſidered as parts of its province. It is therefore requiſite, in order to form a proper idea of this country, that I ſhould treat of them in the ſame circumſtantial manner I have already obſerved in deſcribing the juriſdictions.

I. The firſt government in the province of Quito, and which terminates it on the north, is that of Popayan. It is not indeed wholly dependent on it, being divided into two juriſdictions, of which that on the north and eaſt belong to the audience of Santa Fé, or the new kingdom of Granada, Quito having only thoſe parts lying towards the ſouth and weſt; ſo that, without omitting any thing remarkable in the whole government, I ſhall be a little more explicit in my account of the department belonging to Quito.

The conqueſt of the whole country now containing the government of Popayan, or at leaſt the greater part of it, was performed by that famous commander Sebaſtian de Belalcazar, who being governor of the province of Quito, where he had ſettled a perfect tranquillity, and finiſhed the building of that city, being informed that on the north ſide of his government lay a country of great extent, and richer than the parts he already poſſeſſed, prompted by that ſpirit which had animated the Spaniards to extend their reputation by a ſeries of amazing conqueſts in this part of the globe, he ſet out on his enterpriſe in 1536, at the head of three hundred Spaniards; and after ſeveral ſharp encounters with the Indians of Paſto, who firſt oppoſed his march, he proceeded in his conqueſts, and reduced the two principal curacas of that country, Calambas and Popayan (after whom both the country and chief town were called), two brothers equally reſpected for their power and military talents. This defeat opened him a paſſage to future conqueſts; and the neighbouring nations, terrified at the ſucceſs of thoſe illuſtrious warriors, ſubmitted to the King of Spain. Belalcazar, after theſe exploits, in the proſecution of his conqueſts, had ſeveral other encounters with Indians, fired with the diſdain of ſubmitting to a foreign yoke. His conqueſts were, however, at laſt ſo rapid, that at the cloſe of the ſame year he pitched his camp in the centre of that country, where the mildneſs of the climate, the fertility of the ſoil, and ſalubrity of the air, conſpired to induce him to render it the ſeat of the Spaniſh government. Accordingly, in 1537, he laid the foundation of the firſt city, which ſtill retains the name of Popayan; and whilſt the place was building, he, to keep his people in exerciſe, and prevent the Indians he had conquered from forming themſelves into a new army, or carrying on any clandeſtine correſpondence with thoſe whom his arms had not reached, ſent out detachments different ways, with orders to march into the neighbouring countries, that they might prevent the riſing of ſome, and reduce others to obedience.

Belalcazar had ſcarce finiſhed his new town, when the officers of theſe corps, on their return made ſuch a report of the riches and fertility of the country, that he determined to view it in perſon, increaſe the number of towns, and by that means ſecure the poſſeſſion of it. Accordingly he continued his march to Cali, where he built a town, which ſtill retains the ſame name, though in a different country; for after it was finiſhed in the country of the Gorrones Indians, captain Miguel Munoz ſoon after removed it, on account of the unhealthineſs of the air. Belalcazar founded alſo another town, called Santa

Santa Fé de Antioquia; and, charmed with the fertility and richneſs of the country, he proceeded to people it every where.

Nor was this all; for Belalcázar, in order to enhance the glory and importance of this country, was very deſirous of making a road from Quito to the North Sea, as he had before done to the Pacific Ocean. Among the diſcoveries made by his captains whilſt he was employed in ſuperintending the building of Popayan, one was, that at no great diſtance from that place were two of the principal ſources of the great river Magdalena; whence he conceived they might eaſily find a paſſage to the North Sea. This opinion the general had the pleaſure of finding unanimouſly agreed to, which induced him to make every diſpoſition for the ſecurity and welfare of his conqueſts, being determined to return by way of that river to Spain, in order to ſolicit the title of governor of the country which he had diſcovered, conquered, and peopled. Accordingly the title was conferred on him, and in his government were comprehended all the territories then conſidered as within his conqueſts; but in the year 1730 the country of Choco was ſeparated from it, and made a particular government, though the order was not carried into execution till the year 1735. This part, belonging to the province of the new kingdom of Granada, does not come within our deſcription.

The city of Popayan, one of the moſt ancient in theſe parts, that title having been granted it on the fifth of July 1538, ſtands in a large plain, having on the north ſide an uninterrupted proſpect of the country. Its latitude is 2° 28′ north; lies about two degrees eaſt of the meridian of Quito, on the eaſt ſide of a mountain of a middling height called M, from the reſemblance it bears to that letter; and, being covered with a variety of trees, affords an entertaining proſpect; the weſt ſide is alſo diverſified with ſmall eminences.

The city is moderately large, with broad, ſtraight, level ſtreets; and, though not every where paved, are equally convenient, the foot-path near the houſes being paved in all parts; and the middle of the ſtreets, being compoſed of a hard ſmall gravel, is never dirty in rainy weather, nor duſty in the great droughts of this climate; hence the middle of the ſtreets are more convenient for walking than even the pavement itſelf.

The houſes are built of unburnt bricks, as at Quito, and entirely of the ſame conſtruction: all the houſes of note have a ſtory; but the others only a ground floor. An idea of the largeneſs and convenience of the offices and apartments may be formed by their outward appearance, as well as the magnificence of the furniture, which is all brought from Europe; the expence of which muſt be enormouſly great, as, beſide the long voyage, there is a neceſſity for bringing it a prodigious diſtance by land carriage, and ſubject to unknown dangers in theſe countries.

The church was erected into a cathedral in the year 1547, and is the only parochial church in the city. Not that its extent is too ſmall for maintaining others; but, having originally been the only church, the prebends could never be brought to allow of its being ſubdivided, and part of its revenues applied to the ſupport of other pariſhes. Here are alſo convents of Franciſcans, Dominicans, and Auguſtines, with a college of Jeſuits; all of them having churches. In the latter is alſo a grammar ſchool. The plan of an univerſity, under the direction of the ſame fathers, is in ſuch forwardneſs, that the charter is already granted. The number of religious belonging to each of theſe convents is but ſmall, ſome of them amounting to no more than ſix or eight. It is, however, very different with regard to one of the nunneries, that of the Incarnation, the profeſſed nuns being between forty and fifty; but the whole number, nuns, ſeculars, and ſervants included, exceeds four hundred. The other nunnery is of the order of

Santa Tereſa. All theſe convents and their churches are pretty large; and if the latter do not dazzle the ſight with the ſplendor of their ornaments, they do not want any which decency requires. Here was formerly a convent of bare-footed Carmelites, built on a ſpacious plain, near the top of the mountain of M, from whence, on account of the ſharpneſs of the winds, the fathers ſome time after removed to the foot of the mountain. But they were alſo ſoon diſguſted with their new ſituation; the dry and ſalted fiſh, ſalads, and ſuch like, being the only particulars which this country affords, ſuitable to the perpetual abſtinence of their order; and accordingly they again retired to their original ſituation, chuſing rather to ſuffer the inclemency of the weather, than be confined to diſagreeable food. This was the caſe of another convent of the ſame order founded at Latacunga, where there is alſo no freſh fiſh of any ſort to be had. It muſt, however, be obſerved, that the Tereſian convents, who are under the ſame vow of abſtinence, are not diſcouraged by theſe inconveniences; nor is there a ſingle inſtance of any deficiency in the appointed number of nuns.

From the mountain of M iſſues a river, which by running through the city, beſides other conveniences, carries away all its ſoil. Two bridges are erected over it, one of ſtone, and the other of wood. The name of this river is del Molino. Its waters have a particular medicinal virtue, which they are thought to derive from the many briars through which they flow. In this mountain is alſo a ſpring of very charming water; but, not being ſufficient to ſupply the whole city, it is conveyed to the nunneries, and the houſes of men of rank. A little above a league to the north of Popayan runs the river Cauca. It is very large and deep, its current rapid, and ſubject to dangerous ſwellings in the months of June, July, and Auguſt; the ſeaſon when the horrors of the mountains of Cuanacas, where it has its ſource, are at their height; ſo that the paſſage of it is extremely dangerous, as many travellers, raſhly expoſing themſelves to the intenſeneſs of its cold, amidſt thick ſnows and violent winds, have fatally experienced.

The inhabitants of Popayan and Quito differ very ſenſibly in their caſts; for, as at Quito, and the other towns and villages of its juriſdictions, the moſt numerous claſs of people is that of the caſts which ſprung from the intermarriages of Spaniards and Indians, ſo at Popayan, Carthagena, and other parts where Negroes abound, the lower claſs conſiſts of caſts reſulting from the marriages of the Whites and Negroes; but very few Indian caſts. This is owing to the great multitude of Negro ſlaves kept as labourers at the plantations in the country, the mines, and to do the ſervile offices in the city: ſo that the number of Indians here are very few, compared with the other parts of the province. This government has, however, many large villages of them; and it is only in the capital, and other Spaniſh towns, that they are ſo greatly out-numbered by the Negroes.

The inhabitants of Popayan are computed at between twenty and twenty-five thouſand; and among theſe are many Spaniſh families, particularly ſixty, known to have been originally deſcended from very noble families in Spain. It is worth obſerving here, that, whilſt other towns ſee their inhabitants conſtantly decreaſing, Popayan may boaſt of a daily increaſe. This has indeed nothing myſterious in it; the many gold mines worked all over its juriſdiction, afford employment to the indigent, and, conſequently, occaſion a great reſort of people to theſe parts.

Popayan is the conſtant reſidence of the governor; whoſe office being purely civil, it is not requiſite, as in many others, that he ſhould be acquainted with military affairs. Within the juriſdiction of his government, all matters, civil, political, and military, are under his direction. He is alſo the chief magiſtrate of the city; the others are the two ordinary

ordinary alcaldes, chofen annually, and a proper number of regidores, the conftitution being the fame as in other cities.

Here is a chamber of finances, into which are paid the feveral branches of the royal revenue; as the tribute of the Indians, the duties on goods, the fifth of the metals, and the like.

The eccleſiaſtical chapter is compoſed of the biſhop, whoſe revenue is ſettled at ſix thouſand dollars annually; the dean, who has five hundred; the archdeacon, chanter, rector, and treaſurer, who have each four hundred. This ſee is a ſuffragan of the archbiſhoprick of Santa Fé de Bogota.

Popayan, lying within the juriſdiction of the inquiſition of Carthagena, has a commiſſary from thence. Here is alſo another of the Croiſade; but the authority of theſe two judges extends not beyond the dioceſe, which is far leſs than that of the government, a conſiderable part of it belonging to the archbiſhoprick of Quito.

The juriſdiction of the government of Popayan reaches ſouthward to the river Mayo, and to Ipiales, where it borders on the juriſdiction of the town of San Miguel de Ibarra; north-eaſt it terminates with the province of Antioquia, the laſt of its provinces, and contiguous to that of Santa Fé; and, northward, borders on the government of Carthagena. Its ancient weſtern bounds were the South Sea, but it has ſince been ſo contracted by the new government of Choco, that the territory of Barbacoas is the only part of it which reaches to the ſea; eaſtward it ſpreads itſelf to the ſources of the river Coqueta, which are alſo thought to be thoſe of the river Oronoco and Negro: its extent is not preciſely determined: but a probable conjecture may be made, that from eaſt to weſt it is about eighty leagues, and little leſs from north to ſouth. This juriſdiction being ſo large, and containing many towns and villages, is divided into ſeveral departments, over each of which the principal governor nominates a deputy for the adminiſtration of juſtice, and introduces them to the audience to which they belong, where his nomination is confirmed; a circumſtance neceſſary to procure them all the weight and ſecurity in the ſeveral departments which are conferred on them. Thoſe which form the government of Popayan are,

I. Santiago di Cali.
II. Santa Fé de Antioquia.
III. Las Quatro Ciudades.
IV. Timana.
V. Guadalajara de Buga.
VI. S. Sebaſtian de la Plata.
VII. Almaguer.
VIII. Caloto.
IX. San Juan de Paſto.
X. El Rapoſo.
XI. Barbacoas.

In each of theſe departments, beſides the chief town, are ſeveral others very large and well peopled; and great numbers of ſeats and farm-houſes, where the number of people employed gives them the appearance of villages rather than private dwellings.

Of the above-mentioned departments, thoſe towards the north and eaſt of the city of Popayan, as Santa Fé de Antioquia, Las Quatro Ciudades, Timana, and S. Sebaſtian de la Plata, belong to the audience and province of Santa Fé; the others lying nearer to Quito belong to its province; and thoſe of San Juan de Paſto, and Barbacoas, are within its dioceſe.

The departments of Cali and Buga, lying betwixt the governments of Popayan and Choco, thrive, as being the channel of the commerce which is carried on continually betwixt

betwixt theſe two governments: whereas it is otherwiſe with that of Almaguer, from the ſmallneſs of its juriſdiction, and the little traffic there. That of Caloto, as its extent is conſiderable, ſo is it rich, and abounds in the products of the earth, the ſoil being fertile, and the country every where interſperſed with farms. That of El Rapoſo is on the ſame happy footing as the two firſt. That of Paſto is alſo large, but leſs wealthy. Barbacoas is very ſmall; and in ſuch a general want of proviſions, that, except a few roots and grains peculiar to hot and moiſt climates, it is ſupplied with every thing from other provinces.

The temperature of this government is entirely the ſame as that already ſpoken of in the other parts of the province of Quito; that is, it varies according to the ſituation of places; ſome being more cold than hot, others the reverſe; and ſome, throughout the whole year, enjoy a continual ſpring, as particularly Popayan the capital. The like may be ſaid of the ſoil, which exuberantly produces the grains and fruits proper to its ſituation; and the farms breed great numbers of horned cattle and ſheep, for the conſumption of the towns and country people: and in the territory of Paſto graziery is a very profitable article, large herds and flocks being driven to Quito, where they always find a good market. The juriſdiction of Popayan is more ſubject to tempeſts of thunder and lightning, and earthquakes, than even Quito; though in the latter, as we have obſerved, they are ſo very frequent. No longer ago than 1735, at one in the afternoon on the ſecond of February, the greateſt part of the town was ruined by one. This remarkable frequency of tempeſts and earthquakes, in the country of Popayan, may be conjectured to proceed from the great number of mines, in which it exceeds all the others within the province of Quito.

But of all the parts in this juriſdiction Caloto is accounted to be the moſt ſubject to tempeſts of thunder and lightning; this has brought into vogue Caloto bells, which not a few perſons uſe, being firmly perſuaded that they have a ſpecial virtue againſt lightning. And, indeed, ſo many ſtories are told on this head, that one is at a loſs what to believe. Without giving credit to, or abſolutely rejecting all that is reported, leaving every one to the free deciſion of his own judgment, I ſhall only relate the moſt received opinion here. The town of Caloto, the territory of which contains a great number of Indians, of a nation called Paezes, was formerly very large, but thoſe Indians ſuddenly aſſaulting it, ſoon forced their way in, ſet fire to the houſes, and maſſacred the inhabitants: among the ſlain was the prieſt of the pariſh, who was particularly the object of their rage, as preaching the Goſpel, with which they were ſenſible their ſavage manner of living did not agree, expoſing the folly and wickedneſs of their idolatry, and laying before them the turpitude of their vices. Even the bell of the church could not eſcape their rancour, as by its ſound it reminded them of their duty to come and receive divine inſtruction. After many fruitleſs endeavours to break it, they thought they could do nothing better than to bury it under ground, that, by the ſight of it, they might never be put in mind of the precepts of the Goſpel, which tended to abridge them of their liberty. On the news of their revolt, the Spaniards in the neighbourhood of Caloto armed; and, having taken a ſmart revenge of the inſurgents in a battle, they rebuilt the town, and having taken up the bell, they placed it in the ſteeple of the new church; ſince which, the inhabitants, to their great joy and aſtoniſhment, obſerved, that, when a tempeſt appeared brooding in the air, the tolling of the bell diſperſed it; and if the weather did not every where grow clear and fair, at leaſt the tempeſt diſcharged itſelf in ſome other part. The news of this miracle ſpreading every where, great ſolicitations were made for procuring pieces of it to make clappers for little bells, in order to enjoy the benefit of its virtue, which, in a country

where tempeſts are both ſo dreadful and frequent, muſt be of the higheſt advantage. And to this Caloto owes its reputation for bells.

In the valleys of Neyba, and others within the juriſdiction of Popayan, is a very remarkable inſect, particularly famous for the power of the ſmall quantity of venom in it. This inſect, which is ſhaped like a ſpider, is much leſs than a bug. Its common name is coya, but others call it coyba; its colour is of a fiery red, and, like ſpiders, it is generally found in the corners of walls, and among the herbage. Its venom is of ſuch a malignity, that, on ſqueezing the inſect, if any happen to fall on the ſkin of either man or beaſt, it immediately penetrates into the fleſh, and cauſes large tumours, which are ſoon ſucceeded by death. The only remedy hitherto known is, on the firſt appearance of a ſwelling, to ſinge the party all over the body with the flame of ſtraw, or long graſs, growing in thoſe plains. In order to this, the Indians of that country lay hold of the patient, ſome by the feet, and others by the hands, and with great dexterity perform the operation, after which the perſon is reckoned to be out of danger. But it is to be obſerved, that though this inſect be ſo very noxious, yet ſqueezing it between the palms of the hands is attended with no bad conſequence; from whence the plain inference is, that the callus, uſual on the hands of moſt people, prevents the venom from reaching the blood. Accordingly the Indian muleteers, to pleaſe the curioſity of the paſſengers, ſqueeze them betwixt the palms of their hands, though unqueſtionably, ſhould a perſon of a delicate hand make a trial, the effects would be the ſame as on any other part of the body*.

Nature is equally admirable in her works, and in her care of them. Man is endued with diſcernment, knowledge, and obſervation, that he may avoid whatever is hurtful to his being; and the irrational ſpecies receive the like notices from inſtinct, and are not leſs obſervant than man. The people who travel along theſe valleys, where they are ſo much in danger of theſe coyas, according to the warning before given them by the Indians who attend them, though they feel ſomething ſtinging them or crawling on their neck or face, are careful not to ſcratch the part, nor even ſo much as lift up their hands to it, the coya being of ſuch a delicate texture that it would immediately burſt; and as there is no danger whilſt they do not eject the humour in them, the perſon acquaints ſome one of the company with what he feels, and points to the place; if it be a coya, the other blows it away. The beaſts, who are not capable of ſuch warning, are yet by inſtinct taught a precaution againſt the danger which may reſult from theſe inſects in the paſtures; for before they offer to touch the herbage, they blow on it with all their force in order to diſperſe any of thoſe pernicious vermin; and when their ſmell acquaints them that they are near a neſt of coyas, they immediately leap back and run to ſome other part. Thus they ſecure themſelves from the venom of theſe inſects, though ſometimes a mule, after all its blowing, has been known to take in ſome with its paſture, on which, after ſwelling to a frightful degree, they have expired on the ſpot.

Among the plants of the country of Popayan, in the juriſdiction of Timana, grows the cuca or coca, an herb ſo eſteemed by the Indians in ſome provinces of Peru, that they would part with any kind of proviſions, the moſt valuable metals, gems, or any thing elſe, rather than want it. It grows on a weak ſtem, which for ſupport twiſts itſelf round another ſtronger vegetable, like the vine. Its leaf is about an inch and a half, or two inches in length, and extremely ſmooth; the uſe the Indians make of it is for chewing, mixing it with a kind of chalk

* The Brazilians ſay, oil and ſalt is a certain cure for the poiſon of the coyba. A.

or

or whitiſh earth called mambi. They put into their mouth a few cuca leaves, and a ſuitable portion of mambi, and, chewing theſe together, at firſt ſpit out the ſaliva which that manducation cauſes, but afterwards ſwallow it; and thus move it from one ſide of the mouth to the other, till its ſubſtance be quite drained; then it is thrown away, but immediately replaced by freſh leaves. This herb is ſo nutritive and invigorating, that they labour whole days without any thing elſe, and on the want of it they find a decay in their ſtrength: they alſo add, that it preſerves the teeth ſound, and fortifies the ſtomach.

In the ſouthern provinces of Peru great quantities of it are produced, being cultivated by the Indians; but that growing wild in the neighbourhood of Cuſco is accounted the beſt of any. It makes no ſmall article in trade, particularly vaſt quantities of it are carried to the mine towns, that the owners of the mines may have wherewithal to furniſh the Indians, who otherwiſe could not be brought to work, or would not have ſtrength to go through it.

This coca is exactly the ſame with the betel of the Eaſt Indies. The plant, the leaf, the manner of uſing it, its qualities, are all the ſame: and the eaſtern nations are no leſs fond of their betel than the Indians of Peru and Popayan are of their coca; but in the other parts of the province of Quito, as it is not produced, ſo neither is it uſed.

In Paſto, one of the moſt ſouthern diſtricts of Popayan, are certain trees which yield a reſin called mopa-mopa; and of this is made a varniſh, which, beſides its exquiſite beauty, will bear boiling water, and even acids. The method of applying it is, to diſſolve ſome of the reſin in one's mouth, and then wet the pencil with it; afterwards it is dipped in the colour which is to be laid on, and when dried has all the luſtre of the Chineſe laque, but with this ſuperior quality, that it never wears off, nor becomes moiſt, though rubbed with ſpittle. The cabinets, tables, &c. made by the Indians of this country, and thus varniſhed, are carried to Quito, where they are highly valued.

Popayan is one of the beſt trading countries within the province of Quito, as all the vaſt variety of Spaniſh goods from Carthagena are conſigned thither and forwarded to Quito; and great numbers of traders go their rounds through the ſeveral juriſdictions, to the great conveniency of the towns and villages, which thus ſupply themſelves. Beſides this tranſitory commerce, it has another reciprocal with Quito, to which it exports horned cattle and mules, and receives in return cloths and bays. Its active commerce conſiſts in dried beef, ſalted pork, roll-tobacco, hogs'-lard, rum, cotton, pita, ribbons, and other ſmall wares, which are brought to Choco, and there exchanged for gold; ſugar and ſnuff are imported from Santa Fé and ſent to Quito; and the returns to Santa Fé are home-made cloths and bays. Here is alſo another traffic, which conſiſts in bartering ſilver for gold; for, there being an abundance of the latter, and a ſcarcity of the former, ſilver is brought to exchange for gold, of which great profit is made by converting it into doubloons: the like is alſo practiſed at Choco and Barbacoas, which are in the ſame caſe as to metals.

Popayan being the centre of all theſe ſeveral kinds of commerce, the moſt wealthy perſons of the whole juriſdiction are here, and five or ſix of its inhabitants are reckoned to be maſters of above 100,000 dollars; twenty to be worth betwixt 40 and 80,000, beſides many of ſmaller, yet handſome, fortunes: and this excluſive of their farms and mines, with which this country abounds. The former are the ſame with thoſe I have had occaſion to mention in the other parts of this province, according to the quality of the temperature.

Weſt of the weſtern Cordillera of the Andes, is the government of Atacames, which on this quarter borders on the juriſdictions of the corregmientos of Quito and the town

of San Miguel de Ibarra; northward on the department of Barbacoas in the government of Popayan; its weſtern boundary is the South Sea; and ſouthward it joins the territory of Guayaquil. Thus it reaches along the coaſt from the iſland of Tumaco, and the houſe of Huſmal, which lie in one degree and a half north latitude, to the bay of Caracas, and the mountains of Balſamo, in 34′ ſouth latitude.

The country of this juriſdiction lay a long time uncultivated; and if not wholly, at leaſt the greateſt part of it, unknown; for, after its conqueſt by Sebaſtian de Belalcazar, the peopling of it was neglected, either becauſe the Spaniards were more intent in regulating their conqueſts than in improving what they had got, or becauſe the country did not ſeem to them ſo proper for a ſettlement as the ſierra or mountainous parts; or perhaps they judged it barren and unhealthy. And though care was taken to furniſh Quito with prieſts, to preſerve its Indian inhabitants in an adherence to thoſe precious truths they had embraced; yet it was with the total neglect of that improvement of the country, which was ſeen in all the other parts where the Spaniards had ſettled. Thus theſe people, though Chriſtians by profeſſion, remain in that ruſticity and ſavageneſs natural to men who are out of the way of rational converſation and commerce to civilize them; an Indian only coming now and then from their woods with aji, achote, and fruits, to ſell at Quito, where they ſeem ſtruck with amazement at the ſight of ſuch a concourſe of people at one place; it being indeed far beyond what could be imagined by ſuch as ſeldom or never came to any diſtance from their poor cottages, diſperſed and ſhut up in the woods, and living among the wild beaſts.

Though the country of Atacames lay thus neglected for ſome years after the introduction of the Chriſtian religion, and its inhabitants had performed homage to the King of Spain; yet the importance of making ſettlements here, and cultivating the ground, for facilitating the commerce betwixt the province of Quito and the kingdom of Terra Firma, was not unknown, as thereby an end would be put to the inconveniences of carrying it on by the way of Guayaquil; which being a great circuit, the trade ſuffered in many particulars; and indeed could not long have ſubſiſted, without making a ſettlement of Spaniards in Atacames; as thus the way would be much ſhorter for the commerce betwixt Terra Firma and Quito, which now conveniently ſupplies it with proviſions of all kinds, and receives European goods in return.

Purſuant to theſe views, Paul Durango Delgadillo was, in the year 1621, appointed governor of Atacames and Rio de las Eſmaraldas. He had ſome years before entered into a contract with the Marquis de Montes Claros, for opening a way from the town of San Miguel de Ibarra to the river Santiago, one of thoſe which traverſed the country belonging to the juriſdiction of this government; and likewiſe to people and cultivate it. But failing of fulfilling the agreement, though he was not wanting in endeavours, the government in the year 1626 was taken from him, and conferred on Franciſco Perez Menacho, who however had no better ſucceſs than he who had been diſplaced.

After theſe two, came Juan Vincencio Juſtiniani in the ſame character; but he, ſeeing the inſuperable difficulties according to the methods of his predeceſſors, confidently offered to make the way by the river Mira, but alſo failed in the execution; and Don Hernando de Soto Calderon, who began it in the year 1713, and rather more ſanguine in his aſſurances of ſucceſs than the former, alſo diſappointed the general expectation; and thus the ſo much deſired communication of the province of Quito and the kingdom of Terra Firma remained as it was till the year 1735, when Don Pedro Vincente Maldonado, being inveſted with the ſame powers as his predeceſſors, ſurpaſſed them in execution; and in 1741 laid open a direct communication betwixt Quito and the Rio de las Eſmaraldas; and having verified his proceeding before the audiences, and

obtained their approbation, he returned to Spain, to ſolicit the confirmation of his employment as governor, and the rewards ſpecified in the contract. On the favourable report of the ſupreme council of the Indies, His Majeſty, in 1746, confirmed him as governor of that country, which, in 1747, was formally erected into a government, by the commiſſion then given to the above gentleman, who by his ſkill and reſolution had ſo well deſerved it.

The towns within the government of Atacames are at preſent but ſmall and poor, having hitherto lain out of the way of traffic, and the country but little cultivated. However, this governor takes ſuch meaſures for the improvement of it, that already the face of things begins to alter greatly for the better; and the fertility of the ſoil will naturally invite ſettlers, and the communication being opened through it betwixt the kingdom of Terra Firma and the province of Quito, will cauſe a circulation of money. In the mean time this government contains twenty towns, five of which are on the ſea-coaſt, and ſtand the firſt in the following liſt: the others are inland places:

I. Tumáco.
II. Tola.
III. San Matheo de Eſmeraldas.
IV. Atacàmes.
V. La Canoa.
VI. Lachas.
VII. Cayàpas.
VIII. Inta.
IX. Gualéa.
X. Nanegàl.
XI. Tambillo.
XII. Niguas.
XIII. Cachillàcta.
XIV. Mindo.
XV. Yàmbe.
XVI. Cocanìguas.
XVII. Canſa Coto.
XVIII. Santa Domingo.
XIX. San Miguel.
XX. Nono.

The inhabitants of the five towns are Spaniards, Meſtizos, Negroes, and Caſts, which ſprung from theſe three ſpecies. Thoſe of the other fifteen are in general Indians, having few Spaniards, Mulattos, or Negroes, among them. With the ſpiritual concerns eleven prieſts are inveſted, who continually reſide in the great towns, and occaſionally viſit the others, where are chapels of eaſe.

The temperature of Atacames is like that of Guayaquil, and accordingly produces the ſame kinds of vegetables, grains, and fruits, though ſome of them to a much greater perfection; for, by lying higher, it is not ſubject to the inundations proceeding from the ſwelling of rivers: and thus the cacao, in its plantations and foreſts, having all the moiſture that plant delights in, without being drowned, is much ſuperior to the other in ſize, oilineſs, and delicacy of flavour. It likewiſe produces in great abundance vanillas, achote, ſarſaparilla, and indigo; alſo a great deal of wax is made here: and the foreſts are ſo thick ſet with trees of a ſurpriſing bulk and loftineſs, as to be impenetrable; and theſe trees, as in the foreſts of Guayaquil, are of an infinite variety; ſome fitter for land works, others for naval uſes, and ſome excellent for both.

CHAP. IV. — *Deſcription of the Governments of Quixos and Macas; with an Account of Jean de Bracamoros, the Diſcovery and Conqueſt of it.*

NEXT to the government of Popayan, which has been treated of in the foregoing chapter, follow thoſe of Quixos and Macas, on the eaſt ſide of the Cordillera of the Andes; it is divided into two diſtricts, Quixos being the north part of the government,

and

and Macas the ſouth, with the country of Camelos lying betwixt them. As their ſituation and other circumſtances require that each ſhould be treated diſtinctly, I ſhall begin with Quixos, which on the north ſide borders on the juriſdiction of Popayan; eaſtward it reaches to the river Aguarico, and weſtward is ſeparated from the juriſdictions of Quito, Latacunga, and the town of San Miguel de Ibarra, by the Cordilleras of Cotopaxi and Cayamburo. The firſt diſcovery of the country of Quixos is owing to Gonzalo Diaz de Pineda, in the year 1536, who, among the officers ſent from Popayan by Sebaſtian de Belalcazar, to trace the courſe of the river of Magdalena, and take a ſurvey of the country adjacent to that which had been conquered, was appointed to make diſcoveries in theſe parts, which he performed with great care and diſpatch; and finding it to abound in gold, and caſſia trees, he returned to his commander; and on his report, Gonzalo Pizarro, in the year 1539, at that time governor of Quito, marched to it with a deſign of reconnoitring its whole extent, and making ſettlements. But, his expedition miſcarrying, the conqueſt of this country, though from Pineda's report very deſirable, was ſuſpended till the year 1549, when the Marquis de Canete, Viceroy of Peru, gave a commiſſion to Gil Ramirez Davalos, a man of undaunted courage when intereſt was in view, for reducing the Indians and making ſettlements in the country; which he accordingly accompliſhed, and founded the town of Baeza, the capital of the government, in the year 1559; and it was ſoon followed by other towns and villages, ſtill exiſting; but with very little improvement beyond their firſt ſtate.

The town of Baeza, though the moſt ancient of the country, and long the reſidence of the governors, has always remained very ſmall, which is owing to the building of the two cities of Avila and Archidona, ſtill ſubſiſting, and at that time the chief object of the attention of the ſettlers, Baeza being left as firſt built; and theſe, ſo far from having increaſed ſuitably to the title of cities, which was given them at their foundation, remain on their firſt footing. The cauſe of the low ſtate of the places here is the nature of the country, which, in air, fertility, and other enjoyments of life, being inferior to that of Quito, few ſettle here who can live in the other. Baeza is indeed extremely declined, conſiſting only of eight or nine thatched houſes, with about twenty inhabitants of all ages, ſo that from the capital it is become annexed to the pariſh of Papallacta, in which town reſides the prieſt, who has beſides under his care another town called Maſpu. This decay was no more than a conſequence of the removal of the governor, who of late has reſided at Archidona.

The city of Archidona is a ſmall place, lying in one degree and a few minutes ſouth of the equinoctial, and about one degree fifty minutes eaſt of the meridian of Quito. The houſes are of wood, covered with ſtraw, and the whole number of its inhabitants is reckoned at betwixt 650 and 700, conſiſting of Spaniards, Indians, Meſtizos, and Mulattos; it has only one prieſt, under whoſe care are alſo three other towns, called Miſagualli, Tena, and Napo; the laſt receives its name from the river on the borders of which it ſtands; and this ſituation proved its ruin on the 30th of November 1744, when, by the exploſion of the Volcano, or Cotopaxi, of which a more particular account ſhall be given in another place, this river became ſo ſwelled by the torrents of melted ſnow and ice, that it entirely bore down the town of Napo, and the houſes were carried along by the impetuoſity of the current.

The city of Avila, but very much below that title, ſtands on 0° 44″ S. lat. and near 2° 20″ E. of Quito. It is ſo much leſs than the former, that its inhabitants ſcarce amount to 300 of both ſexes. Its houſes are built of the ſame materials. It has alſo a

prieſt, whoſe eccleſiaſtical juriſdiction comprehends ſix towns, ſome of them in largeneſs and number of inhabitants not inferior to the city. Theſe are,

I. La Conception.
II. Loreto.
III. San Salvador.
IV. Motte.
V. Cota Pini.
VI. Santa Roſa.

The foregoing towns conſtitute the chief part of this government; but it alſo includes the towns of the miſſion of Sucumbios, the chief of which is San Miguel. At the beginning of this century they were ten, but are now reduced to theſe five:

I. San Diego de los Palmares.
II. San Franciſco de los Curiquaxes.
III. San Joſeph de los Abuccèes.
IV. San Chriſtoval de los Yaguages.
V. San Pedro de Alcantara de la Cocao, or Nariguera.

The inhabitants of the two cities, and the villages in the dependencies, and thoſe of Baeza, are obliged to be conſtantly upon their guard againſt the infidel Indians, who frequently commit depredations among their houſes and plantations. They compoſe different and numerous nations; and are ſo diſperſed all over the country, that every village is under continual apprehenſions from thoſe which live in its neighbourhood: and when an action happens between the inhabitants and thoſe Indians to the advantage of the former, all they get by it is to return quietly to their dwellings with a few priſoners, no booty being to be had from a people who live without any ſettlement; and from mere ſavageneſs make no account of thoſe things in which the bulk of mankind place their happineſs. Their method in theſe incurſions is, after an interval of apparent quiet and ſubmiſſion, to ſteal up to the Spaniſh ſettlements at a time when they have reaſon to conclude that the inhabitants are off their guard; and if their intent be anſwered, they fall to pillaging and plundering; and, having got what is neareſt at hand, retire with all ſpeed. This perpetual danger may alſo be reckoned among the cauſes which have hitherto kept the government in ſuch low circumſtances.

The temperature of all this country is hot and very moiſt. The rains are almoſt continual; ſo that the only difference betwixt it, Guayaquil, and Porto Bello, is, that the ſummer is not ſo long: but the diſtempers and inconveniencies of the climate are the ſame. The country is covered with thick woods; and in theſe are ſome trees of a prodigious magnitude. In the ſouth and weſt part of the juriſdiction of Quixos is the canela or cinnamon-tree, which, as I have before obſerved, being diſcovered by Gonzalo Diaz de Pineda, he, from them, called the country Canelos, which name it ſtill retains. A great quantity of it is cut for the neceſſary conſumption, both in the province of Quito and in Valles. The quality of this cinnamon does not come up to that of the Eaſt Indies; but in every other particular very much reſembles it; the ſmell, its circumference, and thickneſs, being nearly the ſame: the colour is ſomething browner, the great difference lying in the taſte, that of Quixos being more pungent, and without the exquiſite flavour of that of the Eaſt Indies. The leaf is the ſame, and has all the delicate ſmell of the bark; but the flower and ſeed ſurpaſs even thoſe of India; the former particularly is of an incomparable fragrancy, from the

abundance of aromatic parts it contains; and this favours an opinion, that the trees duly cultivated might be made in every reſpect equal to thoſe of the iſland of Ceylon.

The other products in the iſland of Quixos are the very ſame with thoſe in all the other lands in the ſame climate as this government. The like may be ſaid of fruits, roots, and grains, as wheat, barley, and others, which, requiring a cold air, ſeldom thrive much in any of an oppoſite quality.

The other diſtrict of Macas is bounded on the eaſt by the government of Maynas; ſouthward by that of Bracamoros and Yaguarſongo; and weſtward, the eaſt Cordillera of the Andes divides it from the juriſdiction of Rio Bamba and Cuenca. Its chief town bears the ſplendid title of the city of Mucas, being the common name given to the whole country. And this is better known than its proper ancient name of Sevilla del Oro. It lies in 2° 30″ S. lat., and 40″ E. of Quito. Its houſes, which do not exceed one hundred and thirty, are built of timber, and thatched. Its inhabitants are reckoned at about one thouſand two hundred; but theſe, and it is the ſame all over this diſtrict, are generally Meſtizos with Spaniards. The other towns belonging to this juriſdiction are:

I. San Miguel de Narbaes.
II. Barahonas.
III. Yuquipa.
IV. Juan Lopez.
V. Zuna.
VI. Payra.
VII. Copueno.
VIII. Aguayos.

The ſpiritual government of them all is lodged in two prieſts; one of whom reſiding in the city has the care of the four firſt: and to the latter, who lives at Zuna, belong that town and the three others. At the conqueſt, and for ſome time after, this country was very populous, and, in honour of the great riches drawn from its capital, was diſtinguiſhed by the name of Sevilla del Oro; but at preſent only the memory of its former opulence remains. Such an extreme declenſion proceeded from an inſurrection of the natives, who, after ſwearing allegiance to the King of Spain, took arms, and made themſelves maſters of the city of Logrono, and a town called Guamboya, both in the ſame juriſdiction, and very rich. Theſe devaſtations have ſo diſcouraged any further ſettlement there, that the whole country lies as a waſte; no money goes current in it, and the only way the wretched inhabitants have to provide themſelves with neceſſaries is by bartering their home products.

The nearneſs of Macas to the Cordillera of the Andes cauſes a ſenſible difference betwixt its temperature and that of Quixos: for though it be alſo a woody country, the diverſity betwixt the two moſt diſtant ſeaſons of the year is manifeſt; and as its territory is different from that of the juriſdiction of Quito, ſo the variety in the periods of the ſeaſon is alſo great. Thus winter begins here in April, and laſts till September, which is the time of ſummer betwixt the Cordilleras: and at Macas the fine ſeaſon is in September, and is the more delightful on account of the winds which are then moſtly northward: and thus charged with the frigorific particles which they have ſwept away from the ſnowy mountains over which they have paſſed. The atmoſphere is clear; the ſky ſerene; the earth clothed in its various beauties; and the inhabitants, gladdened by ſuch pleaſing objects, rejoice that the horrors of winter are paſſed, as they are no leſs dreadful and detrimental here than at Guayaquil.

In grains and other products which require a hot and moiſt temperature, the country is very fruitful; but one of the chief occupations of the country people here, is the culture of tobacco, which, being of an excellent kind, is exported in rolls all over Peru.

Peru. Sugar canes alſo thrive well here; and conſequently cotton. But the dread of the wild Indians, who have often ravaged their country, diſcourages them from planting any more than what juſt ſuffices for preſent uſe; they being here in the ſame unhappy ſituation as in Quixos, the villages having in their neighbourhood bands of thoſe ſavage Indians; and when they imagine them to be furtheſt off, are often ſuddenly aſſaulted by them, ſo that they muſt be ready at every inſtant to take arms.

Among the infinite variety of trees which crowd the woods of this country, one of the moſt remarkable is the ſtorax, the gum of which is of a moſt exquiſite fragrancy; but is rare, the trees growing in places at ſome diſtance from the villages; and it is dangerous going to them, by reaſon of the ſavage Indians, who lie in wait like wild beaſts. The like may be ſaid with regard to the mines of Polvos Azules, or Ultramarine, from which, by reaſon of that danger, very little is brought; but a finer colour cannot be imagined. *

The territory belonging to Macas alſo produces cinnamon-trees, which, as the Reverend Don Juan Joſeph de Lozay Acuna, prieſt of Zuna, a perſon of eminent learning, and perfectly verſed in natural hiſtory, told me, is of a ſuperior quality to that of Ceylon, here known by the name of Spaniſh cinnamon; and this was confirmed to me by many other perſons of judgment. This cinnamon viſibly differs from that of Quixos, which, as the ſame perſon informed me, proceeds from the full expoſure of the Maca trees to the ſun, its rays not being intercepted by the foliage of any other trees near them; and theſe alſo are at a diſtance from the roots of other trees, which deprive them of part of the nouriſhment neceſſary to bring it to perfection. And this opinion is confirmed by a cinnamon tree planted either accidentally or by deſign, near the city of Macas, the bark of which, and eſpecially the bloſſom, in its taſte, fragrancy and aromatic power, far exceeds that of the Eaſt Indies.

Great quantities of copal are brought from Macas, alſo wild wax; but the latter of little value, for, beſides being reddiſh, it never indurates; and the ſmell of it, when made into candles, and theſe lighted, is very ſtrong and diſagreeable; and that of Guayaquil and Valles no better. Indeed all the wax in thoſe countries cannot come into competition with thoſe of Europe; though it muſt be obſerved, that there is no ſmall difference in the bee, which in this country is much larger, and its colour inclinable to black. However, it might be made ſomething better, if the inhabitants were acquainted with the art of cleanſing and working it as in Europe; and if it could not be brought to equal the European, a greater conſiſtence might be given to it, which would be no ſmall advantage.

The government, which on the ſouth limits the juriſdiction of the audience of Quito, and follows next to Macas, is that of Jaen, which was diſcovered and ſubdued by Pedro de Vargara in the year 1538, whom Hernando Pizarro had appointed to command in that expedition. Afterwards Juan de Salinas entered the country, with the title of governor of it; and he having by his courage and courteſy reduced the Indians, and ingratiated himſelf with them, a more formal ſettlement was made, and ſeveral towns built, which are ſtill exiſting, though in no better condition than thoſe of Macas and Quixos. Some ſtill retain the appellation of city, not that their largeneſs, number of inhabitants, or wealth, become the title, but on account of the privileges annexed to it.

At the time of the conqueſt this government was known by the names of Igualſongo and Pacamoros, ſince corrupted into Yaguarſongo and Bracamoros; the names of the

* Probably *mountain blue*, an ore of copper. Ultramarine is, from the lapis lazuli, unknown in America.

govern-

government conferred on Juan de Salinas. And thus they continued to be called for many years, till the Indians of both territories in a ſudden revolt deſtroyed the principal towns. Thoſe which were ſpared, after paſſing near an age in wretchedneſs and barbariſm, happily recovered themſelves, became united to the city of Jaen, as part of a government, with the title of Jaen de Bracamoros; and the title of governor of Yaguarſongo, was as before related, kept up by being annexed to the corregidor of Loja.

The town of Jaen, with the addition of Pacamoros, or Bracamoros, from the reunion of the towns of that country to it, was founded in the year 1549, by Diego Palomino. It ſtands in the juriſdiction of Chaca-Inga, belonging to the province of Chuquimayo, and is the reſidence of the governor. It is ſituated on the north ſhore of the river Chinchipe, at its conflux into the Maranon. It lies in about 5° 25′ ſouth latitude, and its longitude may be conjectured to be very little diſtant from the meridian of Quito, if not under it. The account given of the mean condition of the cities of Macas and Quixos alſo ſuits Jaen. We muſt however obſerve, that it is much more populous, its inhabitants being, of all ages and ſexes, computed at three or four thouſand; though theſe, for the moſt part, are Meſtizos, with ſome Indians, but very few Spaniards.

Juan de Salinas likewiſe found in his government of Yaguarſongo three other cities, ſtill ſubſiſting, but ſmall, mean, and defenceleſs, like Jaen. Their names are Valladolid, Loyola, and Saniago de las Montagnas: the laſt borders on the government of Minas, and is only ſeparated from its capital, the city of Borja, by the Pongo de Manceriche. In this country of Jaen de Bracamoros are ſeveral ſmall villages:

I. San Joſeph.
II. Chito.
III. Sànder.
IV. Charape.
V. Pucarà.
VI. Chinchipe.
VII. Chyrìnos.
VIII. Pomàca.
IX. Tomepènda.
X. Chucùnga.

The inhabitants of which are moſtly Indians, with ſome Meſtizos, but no great number of either.

Though Jaen ſtands on the bank of the river Chinchipe, and ſo near the Maranon, yet the latter is not navigable up to it: ſo that thoſe who are to embark on it, go by land from Jaen to Chuchunga, a ſmall place on another river of that name, and in 25′ 29′ latitude, whence they fall down into the Maranon. This town, which may be accounted the port for Jaen, lies four days journey from the city, which is the method of calculating the diſtances here; the difficulties of the road increaſing them far beyond what they are in reality, that not ſeldom that which on good ground might be travelled in an hour or two, takes up a half and ſometimes a whole day.

The climate of Jaen, and the ſame may be ſaid of the whole juriſdiction of this government, is like that of Quixos, except that the rains are neither ſo laſting nor violent; and, like that of Macas, it enjoys ſome interval of ſummer; when the heats, tempeſts, and all the inconveniences of winter, abate. The ſoil is fruitful in all the grains and products agreeable to its temperature. The country is full of wild trees, particularly the cacao, the fruit of which, beſides the exuberance of it on all the trees, is equal to that cultivated in plantations; but is of little uſe here for want of conſumption: and the carriage of it to diſtant parts would be attended with ſuch charges

as

as to prejudice its ſale. Thus the fruits rot on the trees, or are eaten by monkeys or other creatures.

At the time of its firſt diſcovery, and the ſucceeding conqueſt, this country was in great repute for its riches; and not undeſervedly, vaſt quantities of gold being brought from it. But theſe gains were ſoon brought to a period by the revolt of the Indians, though in the opinion of many, who look upon thoſe people to be a part of the human ſpecies no leſs than themſelves, the inſurrection was owing to the exceſſive rigour of the Spaniards, in making them work in the mines under inſupportable fatigues. At preſent, all the gold collected here is by Indians waſhing the ſands of the rivers during the time of the inundations; and thus find gold duſt, or ſmall grains of gold, with which they pay the tributes, and purchaſe neceſſaries; and they make ſo little account of this metal, that though by a proper induſtry they might get a conſiderable quantity, it is only the pooreſt Indians that live near the ſettlements who practiſe it; as for the independent Indians, they give themſelves no concern about it.

The juriſdiction of this government produces in particular vaſt quantities of tobacco; the cultivation of it indeed is the chief occupation of all the inhabitants. After ſteeping the plant in hot mead, or decoctions of fragrant herbs, in order to improve its flavour, and the better to preſerve its ſtrength, it is dried, and tied up in the form of a ſauciſſon, each of a hundred leaves. Thus it is exported into Peru, all over the province of Quito, and the kingdom of Chili, where no other is uſed for ſmoking, in cornets of paper, according to the cuſtom of all theſe countries. This great vogue it owes to the manner of preparing the leaves, which gives it a particular reliſh, and a ſtrength to its ſmoke, that is very agreeable to thoſe who are fond of that amuſement. The country alſo produces a great deal of cotton; likewiſe large breeds of mules; and theſe three articles conſtitute the advantageous traffic which this government carries on with the juriſdiction of its province and the other parts of Peru.

In the countries of Jaen de Bracamoros, Quixos, and Macas, are ſeen great numbers of thoſe wild animals, a deſcription of which has been given in treating of other countries of a like climate. But theſe, beſides tigers, are infeſted with baſtard lions, bears, dantas or grand beſtias (an animal of the bigneſs of a bullock, and very ſwift, its colour generally white, and its ſkin very much valued for making buff leather; in the middle of its head is a horn bending inward). Thoſe three kinds of wild beaſts are unknown in the other countries; and that they are known here, is owing to the proximity to the Cordilleras, where they breed, as in a cold climate adapted to their nature: whence they ſometimes come down into the neighbouring countries; but without this circumſtance of lying ſo near the mountains, they would never be ſeen. Among the reptiles in the country is themaca, a ſnake which the Indians diſtinguiſh by the name of Curi-Mullinvo, having a ſhining ſpotted ſkin like that of the tiger, Curi in the Indian language ſignifying gold; it is wholly covered with ſcales, and makes a frightful appearance, its head being out of all proportion to the body, and has two rows of teeth, and fangs like thoſe of a large dog. The wild Indians, as an oſtentatious mark of their intrepidity, and to give them a more terrible appearance, paint on their targets figures of this ſnake, the bite of which is incurable; and wherever it has ſeized, it never lets go its hold; which the Indians would alſo intimate by their device.

CHAP.

CHAP. V. — *Government of Maynas, and of the River Maranon, or that of the Amazons; its Diſcovery, Courſe, and that of the Rivers running into it.*

HAVING treated of the governments of Popayan and Jean de Bracamoros, which are the northern limits of the province of Quito; as alſo of Atacames, which is its weſtern boundary; I now proceed to the government of Maynas, the eaſtern limit of its juriſdiction. This is particularly entitled to a ſeparate and ſuccinct deſcription, as the great river Maranon flows through it.

The government of Maynas lies contiguous to thoſe of Quixos and Jean de Bracamoros, towards the eaſt. In its territories are the ſources of thoſe rivers, which, after rapidly traverſing a vaſt extent, form, by their conflux, the famous river of the Amazons, known alſo by the name of Maranon. The ſhores of this and many rivers which pay it the tribute of their waters, environ and pervade the government of Maynas. Its limits, both towards the north and ſouth, are little known, being extended far among the countries of infidel Indians; ſo that all the account which can be expected is from the miſſionaries employed in the converſion and ſpiritual government of the wild nations which inhabit it. Eaſtward it joins the poſſeſſions of the Portugueſe, from which it is ſeparated by the famous line of demarcation, the boundary between the Spaniſh and Portugueſe poſſeſſions.

Were I to confine myſelf in general to the extent of the government of Maynas, my deſcription would be very imperfect, and want the nobleſt object of the reader's curioſity, a deſcription of the river of the Amazons; a ſubject no leſs entertaining than unknown; and the more difficult of obtaining a thorough knowledge of, from its lying ſo very remote. This deſcription I ſhall divide into the three following heads, which ſhall contain its ſource, and the principal rivers whereof it is compoſed; its courſe through the vaſt tracts of land it waters; its firſt diſcoveries, and the ſubſequent voyages made on it; in order to give an adequate idea of this prince of rivers; and at the ſame time a more circumſtantial account of the government of Maynas.

I. — *Of the Source of the River Maranon, and of the many others which compoſe it.*

As, among the great number of roots by which nouriſhment is conveyed to a ſtately tree, it is difficult, from the great length of ſome, and the magnitude of others, to determine preciſely that from which the product is derived; ſo the ſame perplexity occurs in diſcovering the ſpring of the river Maranon; all the provinces of Peru as it were emulating each other in ſending it ſupplies for its increaſe, together with many torrents which precipitate themſelves from the Cordilleras, and, encreaſed by the ſnow and ice, join to form a kind of ſea of that which at firſt hardly deſerves the name of a river.

The ſources by which this river is increaſed are ſo numerous, that very properly every one which iſſues out of the eaſtern Cordillera of the Andes, from the government of Popayan, where the river Caqueta or Yupura has its ſource, to the province of Guanuco, within thirty leagues of Lima, may be reckoned among the number. For all the ſtreams that run eaſtward from this chain of mountains, widening as they advance from the ſource by the conflux of others, form thoſe mighty rivers, which afterwards unite in the Maranon; and though ſome traverſe a larger diſtance from their ſource, yet others, which riſe nearer, by receiving in their ſhort courſe a greater num-

ber of brooks, and, conſequently, diſcharging a quantity of water, may have an equal claim to be called the principal ſource. But without confidently determining this intricate point, I ſhall firſt conſider the ſources of thoſe which run into it from the more remote diſtances, and next, thoſe which precipitate themſelves down ſeveral caſcades formed by the crags of the Andes, and, after being augmented by others it receives, join the Maranon in a more copious ſtream; leaving it to the reader to determine which is the original ſource.

The moſt received opinion, concerning the remoteſt ſource of the river Maranon, is that which places it in the juriſdiction of Tarma, iſſuing from the lake of Lauricocha, near the city of Guanuco, in 11° ſouth latitude, whence it directs its courſe ſouth almoſt to 12° through the country belonging to this juriſdiction; and, forming inſenſibly a circuit, flows eaſtward through the country of Juaxa; where, after being precipitated from the eaſt ſide of the Cordillera of the Andes, proceeds northward; and, leaving the juriſdictions of Mayabamba and Chacha-poyas, it continues its courſe to the city of Jaen, the latitude of which, in the foregoing chapter, has been placed in 5° 21′. There, by a ſecond circuit, it runs towards the eaſt in a continual direction; till at length it falls into the ocean, where its mouth is of ſuch an enormous breadth, that it reaches from the equinoctial to beyond the firſt degree of north latitude. Its diſtance from Lauricocha lake to Jaen, its windings included, is about two hundred leagues; and this city being 30° to the weſt of its mouth, is ſix hundred leagues from it, which, with the ſeveral circuits and windings, may, without exceſs, be computed at nine hundred ſuch leagues: ſo that its whole courſe, from Lauricocha to its influx into the ocean, is at leaſt one thouſand one hundred leagues.

Yet the branch which iſſues from Lauricocha is not the only one flowing from theſe parts into the Maranon; nor is it the moſt ſouthern river which diſcharges its waters into that of the Amazons; for, ſouth of that lake, not far from Aſangara, is the ſource of the river which paſſes through Guamanga. Alſo in the juriſdictions of Vilcas and Andaguaylas are two others, which, after running for ſome time ſeparately, unite their ſtreams, and diſcharge themſelves into the river iſſuing from the lake Lauricocha. Another riſes in the province of Chimbi-Vilcas. And, laſtly, one ſtill farther to the ſouth, is the river Apurimac, which, directing its courſe to the northward, paſſes through the country of Cuſco, not far from Lima-Tambo; and after being joined by others, falls into the Maranon about one hundred and twenty leagues eaſt of the junction of the latter with the river Santiago. But here it is of ſuch a width and depth, as to leave a doubt whether it inſinuates itſelf into the Maranon, or the Maranon pays tribute to the Ucayale, as it is called in that part; ſince at the conflux its impetuoſity forces the former to alter the ſtraight direction of its courſe, and form a curve. Some will have the Ucayale to be the true Maranon, and found their opinion on the remoteneſs of its ſource, and the quantity of its waters, which equals at leaſt, if it does not exceed, that of Lauricocha.

In the ſpace intercepted between the junction of the Maranon and the river Santiago, are the Pongo de Manzeriche, and the mouth of the river Ucayale; and about midway betwixt them the river Guallaga, which has alſo its ſource in the Cordilleras, eaſt of the province of Guamanga, and falls into the Maranon. One of the rivers contributing to its increaſe has its riſe in the mountains of Moyo-Bamba; and on its banks, in the middle of its courſe towards the Gualaga, ſtands a ſmall village called Llamas; which, according to the moſt credible accounts, was the place where Pedro de Orſica embarked with his people on his expedition for the diſcovery of the Maranon, and the conqueſt of the adjacent countries.

Eaſtward

Eaſtward of Ucayale, the Maranon receives the river Yabari, and afterwards four others, namely, the Yutay, Yurua, Tefe, and Coari; all running from the ſouth, where they have their ſource nearly in the ſame Cordilleras as that of the Ucayale; but the countries through which the latter paſſes being inhabited by wild Indians, and conſequently but little known to the Spaniards, its courſe, till its junction with the Maranon, cannot be aſcertained: and it is only from vague accounts of ſome Indians, that in certain months of the year it is navigable. There is indeed a tradition of voyages made upon it, and by which it was perceived to run very near the provinces of Peru.

Beyond the Rio Coari, eaſtward, the Cuchibara, alſo called the Purus, joins the Maranon; and after that likewiſe the Madera, one of the largeſt rivers that unite their waters with it. In 1741, the Portugueſe ſailed up it, till they found themſelves not far from Santa Cruz de la Sierra, betwixt 17° and 18° of ſouth latitude. From this river downwards, the Maranon is known among the Portugueſe by the name of the river of the Amazons: upwards they give it the name of the river of Solimoes. Within a ſmall diſtance follows the river of Topayos, likewiſe very conſiderable; and which has its ſource among the mines of Brazil. After theſe, it is further joined by the rivers Zingu, Dos Bocas, Tocantines, and Muju, all iſſuing from the mines and mountains of Brazil; and on the eaſtern ſhore of the latter ſtands the city of Gran Para.

Having thus given an account of the moſt diſtant branches of the ſtately river of Maranon, and of the principal ones which join it from the ſouth, I proceed to thoſe, the ſources of which are nearer, iſſuing from the Cordilleras, and which immediately run into the eaſtern direction; and alſo thoſe which join it from the north.

In the mountains and Cordilleras of Loja and Zamora riſe ſeveral little rivers, the conflux of which forms that of Santiago; and from theſe of Cuenca, others which unite in the Paute: but this, on its union with the former, loſes its name, being abſorbed by the Santiago, (ſo called from a city of that name) near which it joins the two others from Lauricocha and Apurimac. The river Morona iſſues from the lofty deſerts of Sangay; and paſſing very near the city of Macas, runs in a ſouth-eaſt courſe, till it loſes itſelf in the principal channel of the Maranon; which happens at the diſtance of about twenty leagues eaſt of Borja, the capital of the government of Maynas.

In the mountains of the juriſdiction of Riobamba, thoſe of Latacunga, and the town of San Miguel de Ibarra, are the ſources of the rivers Paſtaza and Tigre; and from Cotopaxi and its Cordillera iſſue the firſt branches of the rivers Coca and Napo. Theſe, though their ſources are at no remarkable diſtance, run to a great extent before they join; and retaining the name of Napo, fall into the Maranon, after a courſe of above two hundred leagues in a direct line from eaſt to weſt, with ſome, though inſenſible, inclinations to the ſouth. This is the river which father Chriſtopher de Acuna, who will be mentioned hereafter, takes for the true Maranon, to which, as exceeding all the reſt in largeneſs, the others may be ſaid to add their waters.

From the mountains of the juriſdiction of San Miguel de Ibarra, and thoſe of Paſto, iſſues the river Putu-mayo, called alſo Ica, which, after running ſouth-eaſt and eaſt about three hundred leagues, joins the Maranon much more eaſtward than the river Napo: laſtly, in the juriſdiction of Popayan, the river Caqueta has its origin, which becomes divided into two branches; the weſtern, called Yupura, diſembogues itſelf into the Maranon like another Nile, through ſeven or eight mouths, and theſe are at ſuch a diſtance, that the intermediate ſpace betwixt the firſt and the laſt is not leſs than one hundred leagues; and the other, which runs to the eaſtward, is not leſs famous under the name of Negro. M. de la Condamine, in the narrative of his voyage, confirms the opinion of its being one of the communications betwixt the

Oronoque and Maranon; and corroborates his aſſertion, by the authority of a map compoſed by father John Ferreira, rector of the college of Jeſuits in the city of Gran Para; in which he obſerves, that in the year 1744, a flying camp of Portugueſe, poſted on the banks of the Negro, having embarked on that river, went up it, till they found themſelves near the Spaniſh miſſions on the river Oronoque, and meeting with the ſuperior of them, returned with him to the flying camp on the river Negro, without going a ſtep by land; on which, the author makes this remark, that the river Caqueta, (already mentioned, and ſo called from a ſmall place by which it paſſes, near its ſource) iſſuing from Mocoa, a country joining eaſtward to Almaguar in the juriſdiction of Popayan, after running eaſtward with a ſmall declenſion towards the ſouth, divides itſelf into two branches; one of which declining a little more ſouthward, forms the river Yupura, and after ſeparating into ſeveral arms, runs, as we have noted above, into the Maranon, through ſeven or eight mouths; and the other, after a courſe eaſtward, ſubdivides itſelf into two branches, one of which, running north-eaſt, joins the Oronoque; and the other, in a ſouth-eaſt direction, is the river Negro. This ſubdiviſion in the branches of large rivers, and their oppoſite courſes, though ſomething extraordinary, is not deſtitute of probability; for a river flowing through a country every way level, may very naturally divide into two or more branches, in thoſe parts where it meets with any inclination, though almoſt inſenſible, in the ground. If this declivity be not very great, and the river large and deep, it will eaſily become navigable every where, with a free paſſage from one arm into the other. And in this manner the marſhes are formed in a level country, as we have particularly remarked in the coaſt of Tumbez: for the ſea-water on the flood running into theſe various mouths, which ſometimes are twenty leagues diſtant or more, a veſſel enters one arm by the favour of the tide; but coming to a place where the ſoil riſes, the ſtream runs againſt her, being the water which the ſame flood had impelled through another channel. Thus the ebb cauſes the waters to ſeparate at that point; and each portion of water takes the ſame courſe at going out as at its entrance; yet the place where the ſeparation is made is not left dry. But even though the place where the waters of the river Caqueta are ſeparated ſhould not be level, or nearly horizontal, but lie on a conſiderable declivity, yet if this fall be equal on both ſides, one part of the waters may take its courſe to the Oronoque, and the other to the Negro, without any other conſequence than that the great rapidity would render them impracticable to navigation; but this has nothing to do with the diviſion of the waters, it being no more than forming an iſland either large or ſmall.

From the province of Quito there are three ways to the river Maranon; but all extremely troubleſome and fatiguing, from the nature of the climate, and being full of rocks, that a great part of the diſtance muſt be travelled on foot; for being ſo little frequented, no care has been taken to mend them, whence they are even more dangerous than the others in South America, of which we have given a deſcription.

The firſt of theſe roads, which is the neareſt to the town of Quito, runs through Baza and Archidona; where you embark on the river Napo. The ſecond is by Hambato and Papate, at the foot of the mountain of Tunguragua; and from thence the road lies through the country of Canelos, watered by the river Bobonaza, which joining the Paſtaza, both diſcharge themſelves into the Maranon. The third lies through Cuenca, Loja, Valladolid, and Jaen, from whence at the village of Chuchunga, which is as it were its port, this river becomes navigable; and here all embark who are either going to Manas, or a longer voyage on this river. Of the three, this alone is practicable to beaſts; but the tedioufneſs of the diſtance from Quito renders it the leaſt frequented; for the miſſionaries, who take theſe journeys oftener than any other ſet of

men, in order to avoid its circuit, and the danger of the pafs of Manzeriche, prefer the difficulties and dangers to the others.

In the long courfe of this river from Chuchunga, are fome parts where the banks, contracting themfelves, form ftreights, which, from the rapidity of the waters, are dangerous to pafs. In others, by a fudden turn of its direction, the waters are violently carried againft the rocks; and in their repercuffion, form dangerous whirlpools, the apparent fmoothnefs of which is no lefs dangerous than the rapidity in the ftreights. Among thefe, one of the moft dangerous is that betwixt Santiago de las Montanas and Borja, called Pongo de Manzeriche; the firft word of which fignifies a door or entrance, and by the Indians is applied to all narrow places; the fecond is the name of the adjacent country.

The Spaniards who have paffed this ftreight make the breadth of it to be no more than twenty-five yards, and its length three leagues; and that, without any other help than merely the current of the water, they were carried through it in a quarter of an hour. If this be true, they muft move at the rate of twelve leagues an hour; a moft aftonifhing velocity! But M. de la Condamine, who examined it with particular attention, and to whofe judgment the greateft deference is due, is of opinion, that the breadth of the Pongo, even in its narroweft part, is twenty-five toifes; and the length of the Pongo about two leagues, reckoning from the place where the fhores begin to approach, as far as the city of Borga. And this diftance he was carried in fifty-feven minutes. He obferves alfo, that the wind was contrary; and confequently his balza did not go fo far as the current would otherwife have carried her; fo that, making allowance for this obftruction, the current may be ftated at two leagues and a half, or at three leagues an hour.

The breadth and depth of this river is anfwerable to its vaft length; and in the pongos or ftreights, and other parts where its breadth is contracted, its depth is augmented proportionally. And hence many are deceived by the appearance of other rivers which join it, their breadth caufing them to be taken for the real Maranon; but the mind is foon convinced of its error, by obferving the little increafe which the Maranon receives from the influx of them. This large river, by continuing its courfe without any vifible change in its breadth or rapidity, demonftrates that the others, though before the object of aftonifhment, are not comparable with it. In other parts it difplays its whole grandeur; dividing itfelf into feveral large branches, including a multitude of iflands, particularly in the intermediate fpace between the mouth of the Napo and that of the Coari, which lies fomething to the weftward of the river Negro; where, dividing itfelf into many branches, it forms an infinite number of iflands. Betwixt the miffion of Peba, which is at prefent the laft of the Spanifh, and that of San Pablo the firft of the Portuguefe, M. de la Condamine, and Don Pedro Maldonado, having meafured the breadth of fome of thefe branches, found them nearly equal to nine hundred toifes, that is, almoft a fea league. At the influx of the river of Chuchunga, the place where the Maranon becomes navigable, and where M. de la Condamine firft embarked on it, he found its breadth to be one hundred and thirty five toifes: and though this was near its beginning, the lead did not reach the bottom at twenty-eight toifes, notwithftanding this founding was made at a great diftance from the middle of the river.

The iflands formed by the Maranon eaft of the Napo, terminate at the river Coari, where it again reunites its waters, and flows in one ftream: but here its breadth is from one thoufand to twelve hundred toifes, or near half a league; and here the fame ingenious gentleman, after taking all poffible precautions againft the current, as he had before at the mouth of the river Chuchunga, founded, but found no bottom with one hundred

hundred and three fathom of line. The river Negro, at the diſtance of two leagues from its mouth, meaſured twelve hundred toiſes in breadth, which being nearly equal to that of the principal river, and ſome of thoſe we have named, Ucayale, the Madera, and others, were found to be nearly of the ſame width.

About one hundred leagues below the mouth of the river Negro, the ſhores of the Maranon begin to approach each other near the efflux of the river Trumbetas, which part is called the Eſtrecho de Pauxis, where, as alſo at the poſts of Peru, Curupa and Macapa, along its banks, and on theſe eaſt of the rivers Negro and Popayos, the Portugueſe have forts. At the Eſtrecho de Pauxis, where the breadth of the river is near nine hundred toiſes, the effect of the tides may be perceived; though the diſtance from the ſea-coaſts be not leſs than two hundred leagues. This effect conſiſts in the waters, which, without any change in the direction of their courſe, decreaſe in their velocity, and gradually ſwell over their banks. The flux and reflux are conſtant every twelve hours, with the natural differences of time. But M. de la Condamine, with his uſual accuracy, as may be ſeen in the narrative of his own voyage, obſerved that the flux and reflux perceived in the ocean, on any certain day and hour, is different from that which is felt at the ſame day or hour, in the intermediate ſpace between the mouth of the river and Pauxis, being rather the effect of the tides of the preceding days; proportional to the diſtance of the place from the river's mouth; for as the water of one tide cannot flow two hundred leagues within the twelve hours, it follows, that having produced its effect to a determiued diſtance during the ſpace of one day, and renewing it in the following by the impulſe of the ſucceeding tides, it moves through that long ſpace with the uſual alternation in the hours of flood and ebb; and in ſeveral parts theſe hours coincide with thoſe of the flux and reflux of the ocean.

After flowing through ſuch a vaſt extent of country, receiving the tribute of other rivers precipitated from the Cordilleras, or gliding in a more gentle courſe from remote provinces; after forming many circuits, cataracts, and ſtreights; dividing itſelf into various branches, forming a multitude of iſlands of different magnitudes, the Maranon at length, from the mouth of the river Xingu, directs its courſe north-eaſt and enlarging its channel in a prodigious manner, as it were to facilitate its diſcharge into the ocean, forms in this aſtoniſhing ſpace ſeveral very large and fertile iſlands; of which the chief is that of Joanes or Marayo, formed by a branch of the great river which ſeparates from it twenty-five leagues below the mouth of the Xingu; and directing its courſe to the ſouthward, in a direction oppoſite to that of the principal ſtream, opens a communication between the Maranon and the river of Dos Bocas, which has before received the waters of the Guanapu and Pacayas, and flows into it through a mouth of above two leagues in breadth. Theſe are afterwards joined by the river Tocantines; the outlet of which is ſtill broader than the former, and at a ſtill greater diſtance: the river of Muju, on the eaſtern ſide of which ſtands the city of Gran Para, diſcharges its waters into the ſame ſtream; and it afterwards receives the river Capi, which waſhes the city of the ſame name.

The river of Dos Bocas, after joining that of Tagipuru, runs eaſtward, forming an arch as far as the river of Tocantines, from which it continues north-eaſt like the Maranon, leaving in the middle the iſland of Joanes, which is nearly of a triangular figure, except the ſouth ſide about one hundred and fifty leagues in length, and forms the arch of a circle. This iſland divides the Maranon into the two mouths, by which that river diſembogues itſelf into the ſea. The principal of theſe two mouths from Cape Maguari in this iſland, and the North Cape, is about forty-five leagues broad; and that of the

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channel of Tagipuri, as likewiſe of the rivers which have joined it, from the ſame Cape Maguari to Tigioca point, is twelve leagues.

This river, which exceeds any one mentioned either in ſacred or profane hiſtory, has three names; and is equally known by them all, each implying its ſtupendous majeſty, and importing its ſuperiority to any other in Europe, Africa, or Aſia. And this ſeems to have been intended by the ſingularity of its having three different names; each of them enigmatically comprehending thoſe of the moſt famous in the other three parts of the world; the Danube in Europe, the Ganges in Aſia, and the Nile in Africa.

The names which expreſs the grandeur of this river are the Maranon, the Amazons, and the Orellana. But it is not known with certainty that either of them was the original, before its diſcovery by the Spaniards, given it by the Indians, though probably it was not without many; for as various nations inhabited its banks, it was natural for every one to call it by a particular name, or at leaſt to make uſe of that which had been previouſly given it. But either the firſt Spaniards who ſailed on it neglected this enquiry, or the former names became confounded with others given it ſince that epocha, ſo that now no veſtiges of them remain.

The general opinion prefers, in point of antiquity, that of Maranon, though ſome authors will have it poſterior to the two others; but we conceive they are miſtaken, both in their aſſertion, and in the cauſe of that name. They ſuppoſe that it was firſt given to this river by the Spaniards, who ſailed down it under the conduct of Pedro de Orſua, in 1560 or 1559; whereas it had been known by that name many years before: for Pedro Martyr in his Decades, ſpeaking of the diſcovery of the coaſt of Brazil, in the year 1500, by Vincente Yanez Pinzon, relates, among other things, that they came to a river called Maranon. This book was printed in the year 1516, long before Gonzalo Pizarro undertook the diſcovery of the river, and conqueſt of the adjacent nations who inhabited its banks; or Franciſco de Orellana had ſailed on it. This demonſtrates the antiquity of the name of Maranon; but leaves us under the ſame difficulties with regard to its date and etymology. Some, following Auguſtine de Zarate, attribute the origin of this name to a Spaniſh commander called Maranan, from whom, as being the firſt that diſplayed the Spaniſh enſign on this river, it was thence called after his own name. But this opinion is rather ſpecious than ſolid, being founded only on the ſimilarity of the names, a very exceptionable inference, eſpecially as no mention is made of any ſuch officer in any hiſtory publiſhed of theſe diſcoveries and conqueſts; whence it ſeems natural to conclude, that Zarate, on hearing that the river was called Maranon, inferred that the name was taken from ſome perſon of eminence who had made an expedition on it. For had he known any thing further, he doubtleſs would have enriched his hiſtory with ſome of the adventures of the diſcovery of it; for if he had not thought them ſufficiently intereſting, it is ſomething ſtrange that all the Spaniſh hiſtorians ſhould be in the ſame way of thinking, and concur to ſuppreſs the memory of a Spaniard whoſe name was thought worthy to be given to the moſt diſtinguiſhed river in the world. But what carries along with it a much greater air of probability is, that Vincente Yanez Pinzon, upon his arrival in the river, heard it called by the Indians who inhabited its iſlands and banks, Maranon, or ſome name of a ſimilar ſound; and thence Vincente Yanez concluded that its name was Maranon. Hence it is undeniable, that the preference in antiquity belongs to the name of Maranon; and that this name was not given it by Orſua or his men, in alluſion to ſome feuds and confuſions among them, called in Spaniſh, maranas, or from being bewildered among the great number of iſlands, forming enmaranado, or an intricate labyrinth of channels, according to the opinion of ſome hiſtorians.

The ſecond name is that of the river of the Amazons, which was given it by Franciſco Orellana, from the troops of women who made part of the body of Indians who oppoſed his paſſage, and who were not inferior either in courage, or the dexterous uſe of the bow, to the men; ſo that, inſtead of landing where he intended, he was obliged to keep at a diſtance from the ſhore, and often in the middle of the channel, to be out of their reach. However, on his return to Spain, and laying before the miniſtry an account of his proceedings, and of the female warriors that oppoſed him, he was by patent created governor of theſe parts, in recompenſe, as it was expreſſed, for his having ſubdued the Amazons; and ever ſince the river has been called by that name.

Some have indeed doubted whether the Maranon and the Amazons were the ſame river; and many ſeem to be ſtrongly perſuaded, that they were really different. But this opinion proceeds only from the river's not having been completely reconnoitred till the cloſe of the laſt century.

This particular of the Amazons is confirmed by all writers, who have given a ſuccinct account of the river, and Orellana's expedition; and though this proof is abundantly ſufficient, if not of its reality, at leaſt of its probability, it is additionally confirmed by the tradition ſtill ſubſiſting among the natives, which we may believe on the authority of one of the moſt eminent geniuſes the province of Quito ever produced; I mean Don Pedro Maldonado, who was a native of the town of Riobamba, but lived at Quito, and whoſe performances are well known in the republic of letters. In 1743, this gentleman and M. de la Condamine agreed to return to Europe in company, by the way of the river Maranon; and among their other inquiries towards a complete knowledge of it, and the countries through which it flows, they did not forget the famous Amazons; and were informed by ſome old Indians, that it was an undoubted truth that there had formerly been ſeveral communities of women, who formed a kind of republic, without admitting any men into the government; and that one of theſe female ſtates ſtill ſubſiſted, but had withdrawn from the banks of the river to a conſiderable diſtance up the country; adding, that they had often ſeen ſome of theſe females warriors in their country. M. de la Condamine, in the narrative of his voyage down this river, printed at Paris in the year 1745, and who had all the rational curioſity of his fellow-traveller Don Pedro Maldonado, relates ſome of the facts told him by the Indians, concerning the Amazons whom they had ſeen. But I ſhall only here inſert what hiſtorians have ſaid on this head, leaving every one to give what degree of credit he pleaſes to the adventure of Orellana, and the actual exiſtence of the Amazons.

Some who are firmly perſuaded of the truth of the adventure of the Amazons with Orellana, and believe that their valour might be equal to that of the men, in defence of their country and families, will not hear of a female republic ſeparated from the intercourſe of men. They ſay, and not without ſufficient reaſon, that the women who ſo gallantly oppoſed Orellana were of the Yurimagua nation, at that time the moſt powerful tribe inhabiting the banks of the Maranon, and particularly celebrated for their courage. It is therefore, ſay they, very natural to think that the women ſhould, in ſome degree, inherit the general valour of their huſbands, and join them in oppoſing an invader, from whom they imagined they had every thing to fear, which might inflame their ardour; as likewiſe from an emulation of military glory, of which there are undeniable inſtances in the other parts of the Indies.

The third and laſt name is that of the Orellana, deſervedly given to it in honour of Franciſco de Orellana, the firſt who ſailed on it, ſurveyed a great part of it, and had ſeveral encounters with the Indians who lived in its iſlands or along its banks. Some have been at a great deal of pains to aſſign certain diſtances through its long courſe, and

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to appropriate to each of theſe one of the three names. Thus they call Orellana all that ſpace from the part where this officer ſailed down in his armed ſhip till it joins the Maranon. The name of Amazons begins at the influx of another river, at the mouth of which Orellana met with a ſtout reſiſtance from the women or Amazons; and this name reaches to the ſea: and laſtly, the name of Maranon comprehends the river from its ſource a conſiderable way beyond the Pongo downwards all along the part of the deſcent of this river through Peru, alleging that this was the part through which Pedro de Orſua entered the river; ſupporting their opinion by a derivation, to which we cannot ſubſcribe, namely, that he gave it this name on account of the diſturbances which happened among his men. The truth is, that the Maranon, the Amazons, and the Orellana, are one individual river; and that what is meant by each of theſe names, is the vaſt common channel into which thoſe many rivers fall, which contribute to its greatneſs; and that to the original name of Maranon the two others have been added for the cauſes already mentioned. The Portugueſe have been the moſt ſtrenuous ſupporters of this opinion, calling it by no other name than that of the Amazons, and transferring that of Maranon to one of the captainſhips of Brazil, lying betwixt Grand Para and Siara; and whoſe capital is the city of San Luis del Maranon.

II. — *Account of the firſt Diſcoveries, and of the moſt famous Expeditions on the Maranon, in order to obtain a more adequate Idea of this famous River.*

After this account of the courſe and names of this river, I ſhall proceed to the diſcovery of it, and the moſt remarkable voyages made thereon. Vincente Yanez Pinzon, one of thoſe who had accompanied the Admiral Don Chriſtopher Columbus in his firſt voyage, was the perſon who diſcovered the mouth through which this river, as I have before taken notice, diſcharges itſelf into the ocean. This adventurer, at his own expence, in 1499, fitted out four ſhips, diſcoveries being the reigning taſte of that time. With this view he ſteered for the Canary Iſlands; and after paſſing by thoſe of Cape de Verd, continued his courſe directly weſt, till on the 26th of January, in the year 1500, he had ſight of land; and called it Cabo de Conſolacion, having juſt weathered a moſt violent ſtorm. This promontory is now called Cabo de San Auguſtin. Here he landed; and, after taking a view of the country, coaſted along it northward; ſometimes he loſt ſight of it, when on a ſudden he found himſelf in a freſh-water ſea, out of which he ſupplied himſelf with what he wanted; and being determined to trace it to its ſource, he ſailed upwards, and came to the mouth of the river Maranon, where the iſlands made a moſt charming appearance. Here he ſtaid ſome time, carrying on a friendly traffic with the Indians, who were courteous and humane to theſe ſtrangers. He continued advancing up the river, new countries appearing ſtill as he ſailed further.

To this maritime diſcovery ſucceeded that by land in the year 1540, under the conduct of Gonzalo Pizarro, who was commiſſioned for this enterpriſe by his brother the Marquis Don Franciſco Pizarro, on the report which Gonzalo Dias de Pineda had made of the country of La Canela, in the year 1536; at the ſame time making him governor of Quito. Gonzalo Pizarro arrived at the country of Los Canelos; and following the courſe of a river, either the Napo or Coca, it is not certain which, though more probably the firſt, met with unſurmountable difficulties and hardſhips; and ſeeing himſelf deſtitute of proviſions of every kind, and that his people, by feeding on the buds and rinds of trees, ſnakes, and other creatures, waſted away one after another, he determined to build a veſſel, in order to ſeek proviſions at the

place where this river joined another; the Indians having informed him that there he would meet with a great plenty. The command of this veſſel he gave to Franciſco de Orellana, his lieutenant-general and confident, recommending to him all the diligence and punctuality which their extremity required. After ſailing eighty leagues Orellana arrived at the junction of the two rivers, but met with nothing of what he had been ſent for; being diſappointed in the proviſions he ſought, the trees not bearing any fruit, or the Indians having already gathered it. His return to Pizarro ſeemed very difficult, if not impracticable, on account of the rapidity of the current; beſides, he could not think of returning, without bringing with him that relief ſo earneſtly expected; ſo that, after long debating the matter with himſelf, he determined, without the privity of his companions, to ſail with the current to the ſea. But this could not long remain a ſecret, the hoiſting the ſails ſufficiently demonſtrating his intentions; and ſome vehemently oppoſing ſuch a deſertion, as they called it, were near coming to blows. But at length Orellana, by plauſible reaſons and magnificent promiſes, pacified them; and the oppoſition ceaſing, he continued his voyage, after ſetting aſhore Hernando Sanchez de Vargas to periſh with hunger, as being the ring-leader of the malcontents; and perſiſting in his invectives againſt Orellana's project.

Pizarro, ſurpriſed at having no account of Orellana, marched by land to the place where he had ordered him, and near it met with Hernando Sanchez de Vargas, who acquainted him with the whole affair of the veſſel; at which Pizarro ſeeing himſelf without reſource, a conſiderable part of his men dead, the other ſo exhauſted with fatigue and hunger that they dropt down as they marched, and thoſe in the beſt ſtate reduced to mere ſkeletons; he determined to return to Quito, which, after fatigues and hardſhips even greater than the former, he at laſt reached with a handful of men in the year 1542, having only reconnoitred ſome rivers, and the adjacent country; a ſervice diſproportionate to the loſs of ſo many men, and the miſeries ſuffered in this enterpriſe.

This was the firſt expedition of any conſequence, to make diſcovery of the river Maranon: and if the ſucceſs of Pizarro was not equal to his force and zeal, he was at leaſt the inſtrument of its being entirely accompliſhed by another; and to his reſolution in preſſing forward through difficulties and dangers, and by his expedient of building the armed veſſel, muſt, in ſome meaſure, be attributed the happy event of Orellana's voyage, who, with a conſtancy which ſhowed him worthy of his general's favour, reconnoitred the famous river of the Amazons through its whole extent, the adjacent country, its innumerable iſlands, and the multitude and difference of nations inhabiting its banks. But this remarkable expedition deſerves a more particular detail.

Orellana began to ſail down the river in the year 1541; and in his progreſs through the ſeveral nations along its banks, entered into a friendly conference with many, having prevailed upon them to acknowledge the ſovereignty of the Kings of Spain formally, and with the conſent of the caciques took poſſeſſion of it. Others, not ſo docile, endeavoured to oppoſe, with a large fleet of canoes, his further navigation: and with theſe he had ſeveral ſharp encounters. In one Indian nation bravery was ſo general, that the women fought with no leſs intrepidity than the men; and by their dexterity ſhowed that they were trained up to the exerciſe of arms. This occaſioned Orellana to call them Amazons; which name alſo paſſed to the river. The ſcene of this action, according to Orellana's own account, and the deſcription of the place, is thought to have been at ſome diſtance below the junction of the Negro and Maranon.

Thus he continued his voyage till the 26th of Auguſt, in the ſame year; when, having paſſed a prodigious number of iſlands, he ſaw himſelf in the ocean. He now proceeded to the iſle of Cubagua, or, according to others, to that of La Trinidad, with a deſign of going to Spain, to ſolicit for a patent as governor of theſe countries. The diſtance he ſailed on this river, according to his own computation, was eighteen hundred leagues.

This diſcovery was followed by another, but not ſo complete; it was undertaken in the year 1559 or 1560, under Pedro de Orſua, by commiſſion from the Marquis de Canete, viceroy at Peru, who at the ſame time conferred on him the title of governor of all his conqueſts. But the firſt news of Orſua was, that he and the greateſt part of his men were killed in an ambuſcade by the Indians; a cataſtrophe entirely owing to his own ill conduct, which deſtroyed the great armament made for this enterpriſe, and created an averſion to deſigns liable to ſuch dangers.

In the year 1602, the Reverend Raphael Ferrer, a Jeſuit, having undertaken the miſſion of Cofanes, paſſed down the Maranon, and attentively ſurveyed the country as far as the conflux of the two rivers where Orellana had left Hernando Sanchez de Vargas; and at his return to Quito gave a very circumſtantial account of what he had ſeen, and the different nations he had diſcovered.

Another, but fortuitous, view of the river was taken in 1616. Twenty Spaniſh ſoldiers, quartered in Santiago de las Montanas, in the province of Yaguarſongo, purſued a company of Indians, who, after murdering ſome of their countrymen in the city, fled up the country, and embarked on the Maranon in their canoes. The ſoldiers, in falling down the river, came to the nation of the Maynas, who received them in a friendly manner; and after ſome diſcourſe ſhowed a diſpoſition of ſubmitting to the King of Spain, and deſired miſſionaries might be ſent them. The ſoldiers, on their return to Santiago, having made a report of the good inclination of the Maynas, and their deſire of being inſtructed in the Chriſtian religion, an account was ſent to the Prince of Eſquiloche, viceroy of Peru: and in 1618, Don Diego Baca de Vega was appointed governor of Maynas and Maranon; and may be ſaid to have been in reality the firſt, as neither Pizarro, Orellana, nor Orſua, though inveſted with the title, were ever in poſſeſſion of it, having made no abſolute conqueſts; a neceſſary circumſtance towards realizing the title.

This expedition was performed in 1635 and 1636, and was ſucceeded by that of two Franciſcans, with others of the ſame order, who ſet out from Quito with a determined zeal for propagating Chriſtianity among the nations on the Maranon. But many of them, unable to ſupport themſelves under the fatigues and hardſhips natural in ſuch a country, and diſcouraged with the little fruit their good deſires produced, after wandering among mountains, woods, and deſerts, returned to Quito, leaving only two, Dominico de Brieda and Andrew de Toledo, both lay-brothers. Theſe, either from a religious zeal, or naturally more brave and hardy, or of greater curioſity, ventured to penetrate further into thoſe dreary waſtes. They were indeed attended by ſix ſoldiers, remaining of a whole company who had been ſent, under Captain Juan de Palacio, for the ſafeguard of the miſſionaries; but ſo many of them had returned with the religious to Quito, that theſe ſix and the captain were all that remained: and that officer, a few days after, loſt his life in an action againſt the Indians.

The ſix ſoldiers and two lay-brothers, however, continued with undaunted reſolution to travel through countries inhabited by ſavages, unknown, and full of precipices on all ſides; at length they committed themſelves to the ſtream, in a kind of launch; and after many fatigues, hardſhips, and here and there a rencounter, reached the city

of Para, at that time dependent on, or united with, the captainſhip of the Maranon, the governor of which reſided at San Louis, whither they went, and gave him an account of what they had obſerved in this navigation.

At that time the crown of Portugal was annexed to Spain; and the governor of the captainſhip, or Maranon, for the ſovereign of both kingdoms, was Jacome Reymundo de Norona, who, zealous for the improvement of this diſcovery, as of the higheſt importance to his Prince, fitted out a fleet of canoes, under the command of Captain Texera, to go up the river, and ſurvey the country with greater form and accuracy. This flotilla departed from the neighbourhood of Para, on the 28th of October 1637, with the two religious on board; and after an inceſſant fatigue in making way againſt the ſtream, they arrived at Pahamino on the 24th of June 1638. This place belongs to the juriſdiction of the government of Quixos; whence Texera, with the ſoldiers and the two religious, went to Quito, where he gave an account of the expedition to the audiencia, which tranſmitted the particulars to the Count de Chinchon, Viceroy of Peru; and he, agreeably to the zeal he had always manifeſted for enlarging His Majeſty's dominions, held a council about making more particular diſcoveries along the ſhores of that river.

Among other things, the Count de Chinchon gave orders, that the Portugueſe flotilla ſhould return to Para; and with it ſent ſome intelligent perſons, whoſe zeal might be depended on, with orders to take an accurate ſurvey of the river and its banks; and after diſcharging this commiſſion, to proceed to Spain, and make a report of their expedition to the council of the Indies, in order to be laid before His Majeſty, that meaſures might in conſequence be taken for ſecuring the conqueſt of theſe nations. The perſons choſen were, the Reverend Fathers Chriſtopher de Accuna and Andrez de Artieda, Jeſuits, and perſons every way equal to the ſervice. They left Quito on the 16th of February 1039; and having embarked with the armadilla, after a voyage of ten months, they arrived at Gran Para on the 12th of December, whence, according to their inſtructions, they paſſed over to Spain, and completely acquitted themſelves of the truſt repoſed in them.

At the end of the laſt century, another expedition was undertaken, for making diſcoveries on the Maranon; but at that time it was already ſo well known, that moſt of the adjacent lands had been improved by the miſſions which the Jeſuits had ſettled there: and the government of Manas now includes many nations, who, on the fervent preaching of the Jeſuits, having embraced Chriſtianity, vowed obedience to the Kings of Spain; and a happy alteration was ſeen in their morals and cuſtoms. The banks of this river, where before only wild Indians were ſeen living in the manner of beaſts, were now turned into plantations and regular towns, the inhabitants of which ſhewed that they were not deſtitute of reaſon and humanity. Theſe improvements were in a great meaſure owing to Father Samuel Fritz, who, in 1686, preached the Goſpel among thoſe people, and in a ſhort time was the inſtrument of the converſion of many nations: but the continual fatigues and hardſhips, both by land and water, affected his health to ſuch a degree, that he was obliged to ſet out for Para in January 1689, and arrived there on the 11th of September of the ſame year. Here he remained in a diſagreeable inactivity, till his health was reſtored, and ſome affairs ſettled which required inſtructions from the court of Liſbon.

July the 8th 1691, Father Fritz left Para, in order to return to his miſſion, which then reached from the mouth of the river Napo to ſome diſtance beyond the Negro, and included the Omaguas, Yurimaguas, Ayſuares, and many other adjacent nations, the moſt numerous of the whole river. October the 13th, in the ſame year, he

returned to the town of Nueſtra Señora de las Nieves, the capital of the Yarimagua nation; and having viſited the reſt under his charge, to the number of forty-one, all large and populous, he went, on other public affairs, to the town of Laguna, the capital of all the miſſions on the Maranon, where the ſuperior reſided; and afterwards repaired to the city of Lima, in order to communicate to the Count de Moncloa, at that time viceroy, a full account of all thoſe countries. This laſt journey he undertook by the way of the rivers Guallaga, Patanapura, Moyobamba, Chachapoyas, Caxamarca, Truxillo, and Lima.

The affairs which brought this indefatigable miſſionary to Lima, where he was received with great honour, being finiſhed; Father Fritz, in Auguſt 1693, ſet out, on his return to his miſſions, by the way of the city of Jaen de Bracamoros, with a view of reconnoitring the courſe and ſituation of the rivers which, from thoſe ſouthern parts, fall into the Maranon. By the help of theſe additional lights, he drew a map of that river, which was engraved at Quito, in the year 1707: and though it had not all the accuracy which could be deſired, the father being without inſtruments for obſerving the latitudes and longitudes of the chief places, taking the courſe of the rivers, and determining the diſtances; yet it was received with very great applauſe, as being the only one in which were laid down the ſource and direction of all the rivers which join the Maranon, and the whole courſe of the latter till its junction with the ocean.

III. *Account of the Conqueſt, Miſſions, and Nations, eſtabliſhed on the Maranon.*

The diſcovery of this famous river, and the ſurvey of the adjacent countries and nations, was followed by the conqueſt of the nations who inhabited its banks and iſlands. The miſcarriage of the expedition under Gonzalo Pizarro has already been mentioned: Orellana was not more fortunate; when, purſuant to the grant of the government, he returned to ſettle in it; and Orſua's fate was ſtill more deplorable, periſhing himſelf, with the greateſt part of his followers. But we are now to ſpeak of the more ſucceſsful enterprize of Don Diego Baca de Vega, whom we have already mentioned, but in a curſory manner.

The government of Maynas, and the Maranon, having been conferred on De Vega; confident of the good diſpoſitions of the Maynas Indians, as it had been carefully cultivated, ſince its firſt commencement with the Santiago ſoldiers, he entered the country with a little colony, and founded the city of San Franciſco de Borga, in 1634, as the capital of the whole government; a title which it juſtly deſerved, for being the firſt erected in that vaſt country; and alſo on account of the friendſhip which the Indians had ſhewn for the Spaniards ever ſince their firſt arrival. The new governor being a perſon of judgment and penetration, was not long in obſerving that theſe nations were rather to be governed by moderation and gentleneſs, with a proper firmneſs to create reſpect, than by rigour or auſterity: and accordingly informed the audiencia of Quito and the Jeſuits of their diſpoſition. Miſſionaries were accordingly ſent them, in the perſons of Gaſpar de Cuxia and Lucas de Cuebas, who came to Maynas in the year 1637; and their preaching had ſuch remarkable ſucceſs, that, being not of themſelves ſufficient for inſtructing the multitudes of new converts, they ſent to Quito for aſſiſtance: and thus the number of miſſions continually increaſed, and whole nations reſorted from their foreſts in ſearch of the light of the Goſpel. By this means the King's dominions were extended, every proſelyte with joy acknowledging himſelf in his

his new ſtate a ſubject of the King of Spain, as he owed to his bounty the ineſtimable felicity of his converſion.

Thus the miſſions and the number of towns increaſed together, and the propagation of the Chriſtian religion in thoſe remote countries, and the aggrandiſement of the Spaniſh monarchy, went hand in hand. But the moſt diſtinguiſhed æra of theſe progreſſions was the year 1686, by the zeal and activity of Father Fritz, whom we have had occaſion before to mention with honour: he went directly among the nation of the Omaguas, who having by the Cocamas Indians been informed of the mildneſs and wiſdom with which the miſſionaries taught them to live under juſt and wholeſome laws, and a police hitherto unknown among them; together with the many happy effects it had produced in thoſe nations which had conformed to their inſtructions; animated with theſe pleaſing relations, they ſent, in 1681, a deputation to the town of Laguna, belonging to Cocamas, where Father Lorenzo Lucero, ſuperior of the miſſions, reſided, entreating him to ſend among them perſons for their inſtruction: but the father at that time was not in a capacity of complying with their requeſt, all the miſſionaries being employed elſewhere. He therefore diſmiſſed them, with commending their good intentions; promiſing them, that he would ſend to Quito for a proper perſon to inſtruct them in thoſe ſalutary doctrines embraced by the other nations.

The Omaguas, full of anxiety, did not give Father Lorenzo Lucero time to neglect his promiſe; for, on hearing that new miſſionaries, and among them Father Samuel Fritz, were juſt arrived at Laguna from Quito, the ſame deputation returned to requeſt the immediate performance of the promiſe; and having the greateſt reaſon to expect it would be complied with, great part of the people came in canoes to the town of Laguna, as a teſtimony of reſpect to Father Fritz, in order to conduct him to their country, where they treated him with ſuch veneration, that in his progreſs through the towns they would not ſuffer him to walk, but carried him on their ſhoulders; an honour which the caciques reſerved to themſelves alone. The effects of his preaching were anſwerable to theſe marks of ardour and eſteem, ſo that in a ſhort time the whole nation was brought to a ſerious profeſſion of Chriſtianity, deploring their former ignorance and brutality, and forming themſelves into a political community, under laws calculated for the happineſs of ſociety. And their example ſo influenced ſeveral other adjacent nations, that the Yurimaguas, Aſuares, Banomas, and others, unanimouſly and voluntarily came and addreſſed themſelves to Father Fritz, deſiring him to inſtruct them how to live in the ſame order and regularity as the Omaguas. Thus whole nations, on embracing Chriſtianity, ſubmitted to the ſovereignty of the Spaniſh monarchs: and all the countries from the Napo to a conſiderable diſtance below the Negro, were reduced without the leaſt force throughout the whole extent of the government of Maynas: and ſuch, at the end of the laſt century, was the number of the nations thus converted, that Father Fritz, though without indulging himſelf in any reſpite, was not able to viſit every ſingle town and village within the compaſs of a year, excluſively of the nations under the care of other miſſionaries, as thoſe of the Maynas, Xebaros, Cocamas, Panos, Chamicuros, Aguanos, Muniches, Otanabes, Roamaynas, Gaes, and many more. The other miſſions were in the ſame flouriſhing condition.

The city of San Franciſco de Borja, which we have already mentioned as the capital of Maynas, ſtands in 4° 28″ S. lat. and 1° 54″ E. of the meridian of Quito: but of its largeneſs and appearance we can only add, that it reſembles the cities of the government of Jaen: and its inhabitants, though conſiſting of Meſtizos and Indians, and the place is the reſidence of the governor of Maynes and Maranon, yet they are not equal in number to thoſe of Jaen de Bracamaros. The principal town of the miſſions, and

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in which the ſuperior is obliged to reſide, is Santiago de la Laguna, lying on the eaſtern bank of the river Guallaga. The places which at preſent compoſe thoſe miſſions in the government of Maynas, and dioceſe of Quito, are:

On the River Napo.

I. San Bartholome de Necoya.
II. San Pedra de Aguarico.
III. San Eſtaniſlao de Aguatico.
IV. San Luis Gonzaga.
V. Santa Cruz.
VI. El Nombre de Jeſus.
VII. San Pablo de Guajoya.
VIII. El Nombre de Maria.
IX. San Xavier de Icaguates.
X. San Juan Bautiſta de los Encabellados.
XI. La Reyna de los Angeles.
XII. San Xavier de Urarines.

On the River Maranon, or Amazons.

I. La Ciudad de San Franciſco de Borja.
II. La Certaon, or inland country towards St. Tereſa.
III. San Ignacio de Maynas.
IV. San Andres del Alto.
V. Santo Thomas Apoſtol de Andoas.
VI. Simigaes.
VII. San Joſeph de Pinches.
VIII. La Concepcion de Cagua-panes.
IX. La Preſentacion de Chayabitas.
X. La Incarnacion de Paranapuras.
XI. La Conception de Xebaros.
XII. San Antonio de la Laguna.
XIII. San Xavier de Chamicuro.
XIV. San Antonio Adad de Aguanos.
XV. Nueſtra Senora de las Neves de Yurimaguas.
XVI. San Antonio de Padua.
XVII. San Joaquin de la Grande Omagua.
XVIII. San Pablo Apoſtol de Napeanos.
XIX. San Phelipe de Amaonas.
XX. San Simon de Nahuapo.
XXI. San Franciſco Regis de Yameos.
XXII. San Ignacio de Bevas y Caumares.
XXIII. Nueſta Senora de las Nieves.
XXIV. San Franciſco Regis del Baradero.

Beſides theſe towns, which have exiſted for ſome time, there are ſeveral others yet in their infancy; and the Indians, by whom they are inhabited, of different nations from thoſe above-mentioned: likewiſe many others, both large and populous; ſome on the banks of the rivers which fall into the Maranon, and others up the country.

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Many of the inhabitants of both nations hold a friendly intercourſe with the Spaniſh miſſionaries, and with the inhabitants of the Chriſtian villages, with whom they traffic, as well as with the Spaniards and Meſtizos, ſettled at Borja and Laguna. All theſe nations of Indians have ſome reſemblance in their cuſtoms; but in their languages very different, every one ſeeming to have a particular dialect, though there are ſome of a nearer affinity than others to the general language of Peru. The moſt difficult to be pronounced is that of the Yameos Indians: while, on the other hand, none is ſo eaſy and agreeable to the ear as that of the Omaguas: and the genius and tempers of theſe two nations were found to be as different as their language. Thus the Omaguas, even before their ſubmiſſion, gave many ſurprizing proofs of the clearneſs of their intellects; but were ſurpaſſed by the Yurimaguas, both in wit and penetration. The former lived in villages under ſome kind of government, peacefully obeying their curacas or chiefs. They were leſs barbarous; their manners leſs turbulent and corrupt than thoſe of moſt other Indians. The Yurimaguas formed a kind of republic; and had ſome laws which were ſtrictly obſerved, and the breach of them puniſhed in an exemplary manner. But in police the preference doubtleſs belongs to the Omaguas: for, beſides living in ſociety, there was an appearance of decency among them, their nudities being covered, which by others were totally neglected. This diſpoſition in thoſe two nations for making approaches, however ſmall, to civil cuſtoms and a rational life, not a little contributed to the ſpeedy progreſs of their converſion. They were more eaſily convinced, from the light of nature, of the truth and propriety of the doctrines preached by the miſſionaries; and were convinced, that happineſs, both public and private, was intimately connected with an uniform obſervance of ſuch precepts, inſtead of the innumerable evils reſulting from the manner of living hitherto practiſed by them.

Among the variety of ſingular cuſtoms prevailing in theſe nations, one cannot help being ſurpriſed at the odd taſte of the Omaguas, a people otherwiſe ſo ſenſible, who, to render their children what they call beautiful, flat the fore and hind parts of the head, which gives them a monſtrous appearance; for the forehead grows upwards in proportion as it is flatted; ſo that the diſtance from the riſing of the noſe, to the beginning of the hair, exceeds that from the lower part of the noſe to the bottom of the chin: and the ſame is obſervable in the back part of the head. The ſides alſo are very narrow, from a natural conſequence of the preſſure; as thus the parts preſſed, inſtead of ſpreading, conformably to the common courſe of nature, grows upwards. This practice is of great antiquity among them; and kept up ſo ſtrictly, that they make a jeſt of other nations, calling them calabaſh heads.

In order to give children this beautiful flatneſs, the upper part of the head is put, ſoon after the birth, betwixt two pieces of board; and repeated, from time to time, till they have brought it to the faſhionable form.

Another nation of theſe Indians, affecting a ſtriking appearance, make ſeveral holes in both their upper and under lips, both ſides of the cartilage of their noſe, their chins, and jaws, and in theſe they ſtick fine feathers, or little arrows, eight or nine inches long. The reader's own imagination will ſufficiently paint the ſtrange appearance they muſt make with theſe decorations. Others place a great beauty in long ears; and accordingly extend them by art to ſuch a degree, that in ſome the inferior lobe touches the ſhoulder: and they value themſelves on the nickname of long ears, which has been given them in ridicule. The method they make uſe of to extend their ears, is this: they bore a hole in the lobe, and faſten to it a ſmall weight, which they from time to time increaſe, till the ear is ſtretched to nearly the length above-

mentioned:

mentioned: and as the lobe increaſes in length, ſo likewiſe does it in magnitude. Others paint ſome parts of their bodies; ſome the whole. All have ſomething peculiar in their modes and cuſtoms, but generally of ſuch a nature, that Europeans wonder how they could ever enter the thoughts of rational creatures.*

After deſcribing this great river, and giving an account of the villages and nations near its banks, I ſhall proceed to ſome other particularities relating to it; as the extraordinary ſpecies of fiſh found in its waters, and likewiſe the birds and other animals ſeen in the adjacent countries through which it flows. Among the various kinds of fiſh, are two of an amphibious nature; the caymans or alligators, and the tortoiſe, which ſwarm on the ſhores and iſlands. Its tortoiſes, for taſte, are preferred to thoſe of the ſea. Another remarkable fiſh here is the pexe-buey, or ſea-cow, ſo called from its reſembling the land quadruped of that name. This is one of the largeſt ſpecies known in the river, being generally three or four yards in length, and of a proportional thickneſs: the fleſh is very palatable, and, according to ſome, has pretty much the taſte of beef. It feeds on the herbage growing along the ſhore, but the ſtructure of its body does not admit of its coming out of the water. The female has dugs for ſuckling its young; and whatever ſome may have ſaid of any farther reſemblance to the terreſtrial ſpecies of that name, it has neither horns nor legs. It has indeed two fins, which ſerve equally for ſwimming, and ſupporting itſelf on the banks whilſt feeding. The general method of the Indians for fiſhing, is with inebriating herbs, like that I have mentioned on the river Guayaquil. On ſome occaſions they make uſe of arrows dipped in poiſon, of ſuch an activity, that the ſlighteſt wound immediately kills the fiſh. This is alſo their method of hunting; and in both they are ſo very expert and active, that they are very ſeldom known to miſs their aim. This powerful venom is principally the juice of a bejuco, near ſix fingers broad, and flat on both ſides, of a browniſh colour, and growing in very damp marſhy places. In order to prepare the poiſon, they cut it into pieces, which they bruiſe and boil in water. On taking it off the fire, they add to it a particular ingredient which cauſes a coagulation. With this they rub the point of their arrows; and when dry, for want of freſh unction, they moiſten it with their ſpittle: the quality of it is ſo frigorific, that it immediately repels all the blood to the heart, where the veſſels burſt, being unable to contain ſuch a torrent as ſuddenly ruſhes into them. But what is moſt ſurpriſing here, is, that the creature thus killed, and its coagulated blood, are eaten without any inconveniency. The moſt powerful antidote to this venom is, immediately to eat ſugar: but this ſpecific, though often ſalutary, is not infallible, as ſeveral melancholy inſtances have demonſtrated.

The borders and parts adjacent to this famous river, as well as thoſe contiguous to the others which diſcharge their waters into it, abound with large and lofty trees, the wood of which is of different colours; ſome white, others of a dark brown; ſome red, or veined with variety of colours. Some of another ſpecies diſtil balſams of an exquiſite fragrancy, or rare and medicinal gums; others are noted for their delicious and ſalubrious fruits. Among theſe the wild cacoa, by the mere goodneſs of the ſoil, without any culture, grows in the greateſt plenty, and yields fruit of a goodneſs equal to that in the juriſdiction of Jean and Quixos. Here alſo are gathered great quantities of ſarſaparilla, vanillas, and a bark called Declavo, or cloves: for though it reſembles

* Another remarkable cuſtom is, that of their tying their privities in a bladder before they go into the water. A.

cinnamon in appearance, except its colour, which is ſomething darker, its taſte and ſmell are very different, being nearly the ſame with that of the Eaſt India clove.

As to quadrupeds, birds, reptiles, and inſects, they are nearly the ſame, and in as great numbers as thoſe already mentioned in the deſcription of other hot countries. One reptile of a very extraordinary nature, and known only here and in the provinces of New Spain, I ſhall, as a concluſion of my account of the Maranon, add a deſcription of.

In the countries watered by that vaſt river, is bred a ſerpent of a frightful magnitude, and moſt deleterious nature. Some, in order to give an idea of its largeneſs, affirm, that it will ſwallow any beaſt whole; and that this has been the miſerable end of many a man. But what ſeems ſtill a greater wonder, is the attractive quality attributed to its breath, which irreſiſtibly draws any creature to it, which happens to be within the ſphere of its attraction: but this, I muſt own, ſeems to ſurpaſs all belief. The Indians call it jacumama, i. e. mother of water: for as it delights in lakes and marſhy places, it may, in ſome ſenſe, be conſidered as amphibious. I have taken a great deal of pains to inquire into this particular; and all I can ſay is, that the reptile's magnitude is really ſurpriſing. Some perſons, whoſe veracity is not to be queſtioned, and who have ſeen it in the provinces of New Spain, agreed in their account of the enormous corpulency of this ſerpent; but, with regard to its attractive quality, could ſay nothing deciſive.*

Suſpending, therefore, for the preſent, all poſitive judgment, without giving entire credit to all the qualities vulgarly attributed to this animal, eſpecially the more ſuſpected, as not improbably flowing from aſtoniſhment, which frequently adopts abſurdities, it being impoſſible, in ſo great a perturbation, to conſult reaſon; let me be indulged, with ſome variation of the accidents, to inveſtigate the cauſe, in order to come at the knowledge of its properties, which it is difficult to aſcertain, unleſs ſupported by undoubted experiments. Not that I would offer my opinion as a deciſive rule: I deſire that the judgment of others may declare for that which appears moſt conformable to truth. I would alſo further acquaint the reader, that I only ſpeak from the teſtimony of thoſe who have ſeen this famous ſerpent, having never myſelf had an opportunity of examining it with my own eyes.

Firſt, it is ſaid, that this ſerpent, in the length and thickneſs of its body, very much reſembles the trunk of an old tree, whoſe roots have for ſome time ceaſed to convey the uſual nouriſhment; and that on every part of it grows a kind of moſs, like that ſeen on the bark of wild trees. This is accounted for by the duſt and mud adhering to it; and alternately moiſtened and dried by the water and ſun. This forms a ſlight cruſt over the thick ſcales; and this cruſt is increaſed by the ſluggiſhneſs and ſlow motion of the ſerpent; which, unleſs when forced by hunger to go in queſt of food, continues

* I have ſeen three of theſe ſerpents killed; out of the body of one of them was taken a hog about ten ſtone in weight. The largeſt was about eleven feet long, and twenty-three inches in circumference; the ſmalleſt about nine feet long, and nineteen in circumference. They generally lie coiled up, and wait till their prey paſſes near enough to be ſeized. As they are not eaſily diſtinguiſhed from the large rotten wood (which lies about in plenty in theſe parts), they have opportunities enough to ſeize their prey and ſatiate their hunger. The Indians watch this opportunity, and when they have half gorged their prey, kill them without danger. As I was walking in the woods one day, attended by two Indians and a Negro boy, we were within ten yards of one of theſe ſerpents, when the Negro cried out, Cobra, Senhor! Cobra, Senhor! on which it made away into a neighbouring thicket, which concealed from our ſight the moſt hideous creature I at that time had ever ſeen. In its motion, which was ſlow and peculiar to that ſerpent, it appeared like a ſerpentine log, with two bright gems for eyes, placed within three or four inches from the end which was fartheſt from us, from which rays of azure light ſeemed to dart. A.

motionleſs

motionleſs in one place for ſeveral days together; and even then its motion is almoſt imperceptible, leaving a track like that of a log of timber drawn along the ground.

Its breath is aſſerted to be of ſuch a nature as to cauſe a kind of drunkenneſs or ſtupidity in man or beaſt, which has the misfortune of being within the bounds of its activity; and thus cauſes the animal involuntarily to move till it unhappily comes within the reach of the ſerpent, which immediately ſwallows it. This is the vulgar report: and it is added, that the only method of averting the danger, is, on firſt feeling the breath, to cut it, that is, to ſtop it by the interpoſition of another body, which haſtily intervening, cuts the current of the blaſt and diſſipates it. Thus the perſon, who was moving on to certain deſtruction, is enabled to take another path, and avoid the fatal cataſtrophe. Theſe particulars, if thoroughly conſidered, ſeem mere fables: as indeed the learned M. de la Condamine intimates; and the very circumſtances with which they are decorated, increaſe their improbability.

But, in my opinion, with a little alteration in the circumſtances, what ſeems to ſhock credibility, will appear natural and founded on truth.

That its breath is of ſuch a quality as to produce a kind of inebriation in thoſe whom it reaches, is far from being impoſſible; the urine of the fox is well known to have the ſame effect; and the breath of the whale is frequently attended with ſuch an inſupportable fœtor as to bring on a diſorder in the brain. I therefore ſee no manner of difficulty in admitting, that the breath of this ſerpent may be of that intoxicating quality attributed to it; and may be conſidered as an expedient for catching its prey, as otherwiſe the creature, from the ſlow movement of its body, would be utterly incapable of providing itſelf with food; whereas, by this deleterious ſmell, the animal may be thrown into ſuch horror and perplexity, as to be unable to move, but remain fixed like a ſtatue, or faint away, whilſt the ſnake gradually approaches and ſeizes it. As to what is related of cutting the breath, and that the danger is limited to the direction in which the ſerpent breathes; theſe are tales which, to believe, would imply an utter ignorance of the origin and progreſs of odours. In ſhort, the vulgar errors, propagated by theſe rude nations, have gained credit among the Spaniards, merely becauſe none has had the curioſity or reſolution to put them to the teſt of experience.

CHAP. VI. — *Of the Genius, Cuſtoms, and Manners of the Indians, who are Natives of the Province of Quito.*

THE ſubject of this chapter, and its circumſtances, are of ſuch a nature, that, if what ancient hiſtories deliver concerning them ſhould recur to the memory, they will appear totally different. Indeed the diſproportion between what I read, and what I am going to relate, is ſo remarkable, that, on a retroſpect towards paſt times, I am utterly at a loſs to account for the univerſal change of things; eſpecially when ſurrounded by ſuch viſible monuments of the induſtry, polity, and laws of the Indians of Peru, that it would be madneſs to queſtion the truth of the accounts that have been given of them; for the ruins of theſe ancient works are ſtill amazing. On the other hand, I can hardly credit my own eyes, when I behold that nation involved, as it were, in Cimmerian darkneſs, rude, indocile, and living in a barbariſm little better than thoſe who have their dwelling among the waſtes, precipices, and foreſts. But what is ſtill more difficult to conceive is, how theſe people, whoſe former wiſdom is conſpicuous in the equity of their laws, and the eſtabliſhment of a government ſo ſingular as that under which they live, ſhould at preſent ſhew no traces of that genius and capacity which

formed to excellent an economy, and ſo beautiful a ſyſtem of ſocial duties: though undoubtedly they are the ſame people, and ſtill retain ſome of their ancient cuſtoms and manners. Leaving, therefore, this intricate ſubject to be inveſtigated by farther inquiries, I ſhall proceed to give an account of the preſent Indians, their genius, cuſtoms, and qualities, according to the beſt information I could obtain from a commerce with thoſe people of all ranks, during ten years. Some particulars in this narrative will demonſtrate that they ſtill retain a few ſparks of the induſtry and capacity of the ancient Indians of Peru; whilſt others will ſhew that they are utterly deſtitute of the knowledge of certain ſciences which were common among their anceſtors; and that they are equally degenerated from their wiſdom in making laws, and their regular obſervance of them.

It is no eaſy taſk to exhibit a true picture of the cuſtoms and inclinations of the Indians, and preciſely diſplay their genius and real turn of mind; for if conſidered as part of the human ſpecies, the narrow limits of their underſtanding ſeem to claſh with the dignity of the ſoul; and ſuch is their ſtupidity, that, in ſome particulars, one can ſcarce forbear entertaining an idea that they are really beaſts, and even deſtitute of that inſtinct we obſerve in the brute creation. While in other reſpects, a more comprehenſive judgment, better-digeſted ſchemes, and conducted with greater ſubtilty, are not to be found than among theſe people. This diſparity may miſlead the moſt diſcerning perſon: for, ſhould he form his judgment from their firſt actions, he muſt neceſſarily conclude them to be a people of the greateſt penetration and vivacity. But when he reflects on their rudeneſs, the abſurdity of their opinions, and their beaſtly manner of living, his ideas muſt take a different turn, and repreſent them in a degree little above brutes.

Such is the diſpoſition of the Indians, that if their indifference to temporal things did not extend itſelf alſo to the eternal, they might be ſaid to equal the happineſs of the golden age, of which the ancient poets have given ſuch enchanting deſcriptions. They poſſeſs a tranquillity immutable, either by fortunate or unfortunate events. In their mean apparel they are as contented as the monarch clothed with the moſt ſplendid inventions of luxury; and ſo far are they from entertaining a deſire for better or more comfortable clothing, that they give themſelves no manner of concern about lengthening their own, though half their bodies continue naked. They ſhew the like diſregard for riches; and even that authority or grandeur within their reach is ſo little the object of their ambition, that, to all appearance, it is the ſame thing to an Indian, whether he be created an alcalde, or forced to perform the office of a common executioner.

And thus reciprocal eſteem among them is neither heightened nor leſſened by ſuch circumſtances. The ſame moderation appears in their food, never deſiring more than what ſuffices; and they enjoy their coarſe ſimple diet with the ſame complacency as others do their well-furniſhed tables. Nor do I indeed queſtion but if they had their choice of either, they would prefer the latter; but at the ſame time they ſhew ſo little concern for the enjoyments of life, as nearly approaches to a total contempt of them: in ſhort, the moſt ſimple, mean, and eaſieſt preparation ſeems beſt adapted to their humour.

Nothing can move them, or alter their minds; even intereſt here loſes all its power; it being common for them to decline doing ſome little act of ſervice, though offered a very conſiderable reward. Fear cannot ſtimulate, reſpect induce, nor puniſhment compel them. They are indeed of a very ſingular turn; proof againſt every attempt to rouſe them from their natural indolence, in which they ſeem to look down with contempt on the wiſeſt of mortals: ſo firmly bigoted to their own groſs ignorance, that the

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wiſeſt meaſures to improve their underſtanding have been rendered abortive; ſo fond of their ſimplicity and indolence, that all the efforts and attention of the moſt vigilant have miſcarried. But in order to give a clearer idea of their tempers, we ſhall relate ſome particular inſtances of their genius and cuſtoms; as otherwiſe it will be impoſſible to draw their true character.

The Indians are in general remarkably ſlow, but very perſevering; and this has given riſe to a proverb, when any thing of little value in itſelf requires a great deal of time and patience, "That it is only fit to be done by an Indian." In weaving carpets, curtains, quilts, and other ſtuffs, being unacquainted with any better method, at paſſing the woof they have the patience every time to count the threads one by one, ſo that two or three years is requiſite to finiſh a ſingle piece. This ſlowneſs, undoubtedly is not entirely to be attributed to the genius of the nation; it flows in ſome meaſure from the want of a method better adapted to diſpatch: and perhaps, with proper inſtructions, they would make conſiderable progreſſes, as they readily comprehend whatever is ſhewn them relating to mechanics; of this the antiquities ſtill remaining in the province of Quito, and over all Peru, are undeniable teſtimonies. But of theſe more will be ſaid in the ſequel. This indifference and dilatorineſs of the Indians is blended with ſloth, its natural companion; and their ſloth is of ſuch a nature, that neither their own intereſt, nor their duty to their maſters, can prevail on them to undertake any work. Whatever therefore is of abſolute neceſſity to be done, the care of it is left to the Indian women. Theſe ſpin, and make the half-ſhirts and drawers, which conſtitute the whole apparel of their huſbands. They cook the matalotage, or food, univerſally uſed among them; they grind the barley for machca, roaſt the maize for the camcha, and brew the chicha; in the mean time, unleſs the maſter has been fortunate enough to get the better of the huſband's ſloth, and taken him to work, he ſits ſquatting on his hams (being the uſual poſture of all the Indians), and looks on his wife while ſhe is doing the neceſſary work of the family; but, unleſs to drink, he never moves from the fire-ſide, till obliged to come to table, or wait on his acquaintance. The only domeſtic ſervice they do, is to plough their chacarita, or little ſpot of land, in order to its being ſown; but the latter, together with the reſt of the culture, makes another part, which is alſo done by the wife and children. When they are once ſettled in the above poſture, no reward can make them ſtir; ſo that if a traveller has loſt his way, and happens to come to any of theſe cottages, they hide themſelves, and charge their wives to ſay that they are not at home; when the whole labour conſiſts in accompanying the traveller a quarter of a league, or perhaps leſs, to put him in his way: and for this ſmall ſervice he would get a rial, or half a rial at leaſt. Should the paſſenger alight and enter the cottage, the Indian would ſtill be ſafe; for, having no light but what comes through a hole in the door, he could not be diſcovered: and even if he ſhould ſee the Indian, neither entreaties nor offers would prevail on the ſlothful wretch to ſtir a ſtep with him: and it is the ſame if they are to be employed in any other buſineſs.

That the Indians may perform the works appointed by their maſters, and for which they are properly paid, it will be of little ſignification to ſhew them their taſk; the maſter muſt have his eye continually upon them: for whenever he turns his back, the Indian immediately leaves off working. The only thing in which they ſhew a lively ſenſation and alacrity, is for parties of pleaſure, rejoicings, entertainments, and eſpecially dancings. But in all theſe the liquor muſt circulate briſkly, which ſeems to be their ſupreme enjoyment. With this they begin the day, and continue drinking till they are entirely deprived both of ſenſe and motion.

Such is their propenſity to intemperance, that they are not reſtrained by any dignity of character; the cacique and the alcalde never fail to be of the company at all entertainments, and drink like the reſt, till the chicha has quite overcome them. It is worth notice, that the Indian women, whether maids or married, and alſo the young men before they are of an age to contract matrimony, entirely abſtain from this vice; it being a maxim among them, that drunkenneſs is only the privilege of maſters of families, as being perſons who, when they are unable to take care of themſelves, have others to take care of them.

Their manner of celebrating any ſolemnity is too ſingular to be omitted: the perſon who gives the entertainment invites all his acquaintance, and provides chicha ſufficient for the number of his gueſts, at the rate of a jug for each; and this jug holds about two gallons. In the court of the houſe, if it be a large town, or before the cottage, if in a village, a table is placed, and covered with a tucuyo carpet, only uſed on ſuch feſtivities. The eatables conſiſt wholly of camcha, and ſome wild herbs boiled. When the gueſts meet, one or two leaves of theſe herbs, with ten or twelve grains of camcha, finiſh the repaſt. Immediately the women preſent themſelves with calabaſhes or round totumos, called pilches, full of chica, for their huſbands; and repeat it till their ſpirits are raiſed: then one of them plays on a pipe and tabor, whilſt others dance, as they call it, though it is no more than moving confuſedly from one ſide to the other, without meaſure or order. Some of the beſt voices among the Indian women ſing in their own language. Thus their mirth continues while kept up by the liquor, which, as I have ſaid before, is the ſoul of all their meetings. Another odd circumſtance is, that thoſe who do not dance, ſquat themſelves down in their uſual poſture, till it comes to their turn. The table ſerves only for ſtate, there being nothing on it to eat, nor do the gueſts ſit down at it. When tired with intemperance, they all lie down together, without minding whether near the wife of another, or their own ſiſter, daughter, or more diſtant relation; ſo ſhocking are the exceſſes to which they give themſelves up on theſe ſolemnities, which are ſometimes continued three or four days, till the prieſts find themſelves obliged to go in perſon, throw away all the chica, and diſperſe the Indians, leſt they ſhould buy more.

The day after the feſtival is called Concho, which ſignifies the day for drinking off the remains of the preceding: with theſe they begin; and if not ſufficient to complete their revel, every one of the gueſts runs home to his houſe, and fetches a jug, or they club for more. This occaſions a new concho for the next day; and thus, if left to themſelves, from day to day, till either no more chica is to be had, or they left without money or credit.

Their burials are likewiſe ſolemnized with exceſſive drinking. The houſe of mourning is filled with jugs of chica; and not for the ſolace of the mourners and their viſitors alone: the latter go out into the ſtreets, and invite all of their nation who happen to paſs by, whether married or ſingle of both ſexes, to come in and drink to the honour of the deceaſed; and to this invitation they will take no denial. The ceremony laſts four or five days, and ſometimes more, ſtrong liquor being their ſupreme wiſh, and the great object of all their labours.

If the Indians are thus exceſſively addicted to intemperance, gaming is a fault with which they cannot be charged, though theſe two vices are generally ſeen together. They ſeem to have no manner of inclination for play; nor have they above one kind, and that of great antiquity, among them; this they call paſa, i. e. a hundred, as he wins who firſt gets that number. They play at it with two inſtruments; one a ſpread eagle of wood with ten holes on each ſide, being tens, and are marked with pegs,

to

to denote every man's gettings; the other is a bone in the manner of a die, cut with ſeven faces, one of which has a particular mark, and is called guayro. The other five tell according to the number of them, and the laſt is a blank. The way of playing is only to toſs up the bone; and the marks on the upper ſurface are ſo many got. But the guayro goes for ten; and the like number is loſt if the blank ſide appears. Though this game is peculiar to the Indians, it is very little uſed except at their revels.

The common food of the Indians, as before obſerved, is maize made into camcha or mote, and machca; the manner of preparing the latter is, to roaſt the grain, and then reduce it to a flour; and this, without any other apparatus or ingredient, they eat by ſpoonfuls: two or three of which, and a draught of chicha, or, when that is wanting, of water, completes their repaſt. When they ſet out on a journey, their whole viaticum is a little bag, which they call gucrita, full of this meal, and a ſpoon. And this ſuffices for a journey of fifty or a hundred leagues. When hungry, or fatigued, they ſtop at ſome place where chicha is to be had, or at ſome water; where, after taking a ſpoonful of their meal into their mouth, they keep it ſome time, in order the more eaſily to ſwallow it; and with two or three ſuch ſpoonfuls, well diluted with chicha, or, if that is not to be had, with water, they ſet forward as cheerfully as if riſen from a feaſt.

Their habitations, as may be imagined, are very ſmall; conſiſting of a little cottage, in the middle of which is their fire-place. Here both they, and the animals they breed, live promiſcuouſly. They have a particular fondneſs for dogs; and never are without three or four little curs in their hut: a hog or two, a little poultry, and cuyes, with ſome earthen ware, as pots and jugs, and the cotton which their wives ſpin, conſtitute the whole inventory of an Indian's effects. Their beds conſiſt of two or three ſheep-ſkins, without pillows or any thing elſe; and on theſe they ſleep in their uſual ſquatting poſture: and as they never undreſs, appear always in the ſame garb.

Though the Indian women breed fowl and other domeſtic animals in their cottages, they never eat them: and even conceive ſuch a fondneſs for them that they will not even ſell them, much leſs kill them with their own hands; ſo that if a ſtranger, who is obliged to paſs the night in one of their cottages, offers ever ſo much money for a fowl, they refuſe to part with it, and he finds himſelf under the neceſſity of killing the fowl himſelf. At this his landlady ſhrieks, diſſolves in tears, and wrings her hands, as if it had been an only ſon; till, ſeeing the miſchief paſt remedy, ſhe wipes her eyes, and quietly takes what the traveller offers her.

Many of them in their journeys take their whole family with them; the women carrying on their ſhoulders ſuch children as are unable to walk. The cottages in the mean time are ſhut up; and there being no furniture to loſe, a ſtring, or thong of leather, ſerves for a lock: their animals, if the journey is to laſt for ſeveral days, they carry to the cottage of ſome neighbour or acquaintance: if otherwiſe, their curs are left guardians of the whole; and theſe diſcharge their truſt with ſuch care, that they will fly at any one, except their maſters, who offers to come near the cottage. And here it is worth obſerving, that dogs bred by Spaniards and Meſtizos have ſuch a hatred to the Indians, that, if one of them approaches a houſe where he is not very well known, they fall upon him, and, if not called off, tear him to pieces: on the other hand, the dogs of Indian breed are animated with the ſame rage againſt the Spaniards and Meſtizos; and, like the former, ſcent them at a diſtance.

The Indians, except thoſe brought up in cities or towns, ſpeak no language but their own, called Quichua, which was eſtabliſhed by the Yncas, with an order for its being propagated all over the vaſt empire, that all their ſubjects might be able to underſtand each other; and therefore was diſtinguiſhed by the name of the Yncas language.

Some underſtand the Spaniſh, and ſpeak it; yet very few have the good-nature to anſwer in it, though they know, at the ſame time, that the perſon with whom they are converſing cannot underſtand them in Quichua. Nor is it of any conſequence to deſire and preſs them to explain themſelves in Spaniſh, for this they abſolutely refuſe: whereas it is quite otherwiſe with the Indians born and bred in the towns; for, if ſpoken to in their own language, they are ſure to anſwer in the Spaniſh.

Superſtition is general among them; and they all, more or leſs, pretend to fortune-telling. This weakneſs is alſo of a long ſtanding among them; and which neither the remonſtrances of the prieſts, nor their own experience, can radically cure. Thus they employ artifices, ſuppoſed charms, and ſtrange compoſitions, in order to obtain ſome viſionary happineſs for the ſucceſs of a favourite ſcheme, or other weighty concern. In theſe preſtiges their minds are ſo infatuated, that, to bring them to a ſight of the folly and wickedneſs of ſuch practices, and ſolidly to embrace the Chriſtian religion, is a work of the greateſt difficulty. And even when they have embraced it, are ſo ſuperficial and fickle, that, if they attend divine ſervice on Sundays and holidays, it is merely from fear of puniſhment; for otherwiſe there would be ſcarce one Indian, eſpecially of the meaner ſort, among the whole congregation. Pertinent to this, I ſhall relate, among many other inſtances, the following ſtory, told me by a prieſt. An Indian had, for ſome time, abſented himſelf from the ſervice of the church; and the prieſt being informed that it was owing to his drinking early in the morning, on the following Sunday, when he had been particularly ordered to make his appearance, charged him with his fault, and directed that he ſhould receive ſome laſhes, the uſual puniſhment of ſuch delinquents, be their age or ſex what it will, and perhaps the beſt adapted to their ſtupidity. After undergoing the puniſhment, he turned about to the prieſt, and thanked him for having chaſtiſed him according to his deſerts; to which the prieſt replied with ſome words of exhortation to him, and the audience in general, that they would never omit any duty of Chriſtianity. But he had no ſooner done, than the poor Indian ſtepped up to him, and deſired that he would order him a like number of laſhes for the next Sunday, having made an appointment for a drinking match, ſo that he ſhould not be preſent. This may ſerve as a ſpecimen of the little impreſſion made on them, notwithſtanding all the aſſiduity of the miſſionaries; and that though continually inſtructed, from the firſt dawnings of reaſon till the day of their death, they are found to continue in a ſtrange ignorance of the moſt eſſential points of religion. Their indifference here is ſo very deplorable, that they may be ſaid to give themſelves no more concern about their ſouls than about their bodies, and though I with pleaſure allow, that there are many who, in the culture of their minds, ſanctity of manners, and delicacy of conſcience, equal the moſt wiſe and circumſpect; yet the bulk of them, either by that groſs ignorance which clouds their intellects, and renders them inſenſible of their eternal concerns, or their natural depravity, are hardened againſt religious exhortations. For though they readily grant every thing that is ſaid to them, and never offer to make the leaſt objection; yet they ſecretly harbour ſuſpicions of ſome evil deſign, and leave room for mental reſervations, which ſpoil all. I am little inclined to lay any falſe charge to this or any nation, and eſpecially with regard to ſuch an important ſubject: and in confirmation of what I have ſaid, ſhall relate ſome further particulars.

Every Sunday in the year, the doctrinal prieſts inſtruct their pariſh in the articles of Chriſtianity with indefatigable zeal: alſo, when any Indian is ſick, they never fail to viſit and exhort him to prepare for a comfortable paſſage into eternity, adding whatever they judge may conduce to the opening the eyes of his underſtanding; pathetically expatiating on the juſtice and mercy of God, the nature of death, the certainty of an approaching

approaching judgment, and his preſent danger. After ſpeaking thus a conſiderable time, without a word from the patient, or the leaſt ſign of emotion in his countenance, the good man proceeds to remind him of his ſins, and exhorts him to a ſincere repentance, and to implore the mercy of his Creator; as otherwiſe, his ſoul will be puniſhed to all eternity. The Indian at length anſwers, with a ſerene faintneſs, "So it will be, father:" meaning, that things will happen as he has predicted; but does not underſtand in what theſe threatened ſufferings conſiſt. I have often heard prieſts of thoſe towns, and men of parts and learning, talk with great concern on this ſubject. Hence it is that there are very few Indians to whom the holy euchariſt is adminiſtered; nor would thoſe of the houſe, where a ſick perſon lies, ever give notice of it to the prieſt, were they not afraid of the puniſhment which the law in theſe caſes inflicts; and even as it is, they often neglect this duty, and the patient dies without receiving the ſacrament.

In their marriages, they run counter to the ſentiments of all nations, eſteeming what others deteſt; a virgin being never the object of their choice: for they look on it as a ſure ſign, that ſhe who has not been known to others, can have nothing pleaſing about her.

After a young man has aſked the object of his affections of her father, and obtained his conſent, they immediately begin to live together as man and wife, and aſſiſt the father-in-law in cultivating his chacara. At the end of three or four months, and often of a year, he leaves his bride, without ceremony, and perhaps for the wild reaſon above mentioned: and even expoſtulates with the father-in-law, that he ſhould endeavour to deceive him, by impoſing upon him his daughter, whom nobody elſe had thought worthy of making his bedfellow. But if nothing of this happens, after paſſing three or four months in this commerce, which they call Amanarſe, i. e. to habituate one's ſelf, they then marry: and this cuſtom is ſtill very common, having hitherto proved too ſtrong for the joint endeavours of the whole body of the clergy to extirpate. Accordingly, the firſt queſtion at the ceremony of marriage is, whether they are Amannados, in order to abſolve them of that ſin before they receive the nuptial benediction. They look upon no marriage to be legal which is not ſolemn, and according to them the whole conſiſts in the nuptial benediction, which muſt be given them at the time they join their hands, as otherwiſe, on any caprice, they ſeparate: and it is to no purpoſe to go about to perſuade them that they were married; nor will any puniſhment have the leaſt effect. For as it does not imply any infamy, the intention is loſt. It is the ſame thing with them to be expoſed to the public deriſion and inſults, as to be ordered to ſhew their ſkill in dancing on a feſtival; the thing which, of all others, they moſt delight in. They are indeed ſenſible of corporal puniſhments during the time they are inflicting, but immediately afterwards are as placid and eaſy as if they had not been touched. This occaſions many things to be connived at in them, and other means of prevention uſed.

It is not uncommon among them to change their wives, without any other preliminary or agreement, than having been familiar with the wife of another. The former wife, together with the injured huſband, concert a revenge; and if reproached for ſuch a proceeding, they cheerfully anſwer, that they had ſerved them only as they deſerved; and it avails little to ſeparate them, as they ſoon find means to return to the ſame manner of living. Inceſts are very common among them, both as the conſequence of their monſtrous drunkenneſs, already mentioned, and from their making no diſtinction between honour and infamy, whereby their brutal appetites are under no reſtraint.

If the foregoing tempers or cuſtoms appear ſtrange, their behaviour at confeſſion is not leſs ſo: for, beſides having but a ſlender acquaintance with the Spaniſh language, they have no form to direct them in it. On their coming to the confeſſor, which is always at his ſummons, he is obliged to inſtruct them in what they are going about, and with them repeat the *Confiteor* from one end to the other. For if he ſtops, the Indian alſo remains ſilent. Having gone through this, it is not enough for the prieſt to aſk him, whether he has committed this or that fault; but if it be one of the common ſort, he muſt affirm that he has committed it, otherwiſe the Indian would deny every thing. The prieſt further is obliged to tell him, that he well knows he has committed the ſin, and he has proofs of it. Then the Indian, being thus preſſed, anſwers, with great aſtoniſhment, that it is ſo: and, imagining the prieſt really endued with ſome ſupernatural knowledge, adds circumſtances which had not been aſked him. It is not only difficult to bring them to declare their faults, but even to keep them from denying them, though publicly committed, and equally ſo to prevail on them to determine the number; this being only to be obtained by fineſſes; and then little ſtreſs is to be laid on what they ſay. The natural dread, which more or leſs riſes in all men at the approach of death, is what the Indians are leſs ſuſceptible of than any other people. Their contempt of thoſe evils which make the ſtrongeſt impreſſions on the minds of men, is ſuch, that they view the approach of death without perturbation: and the pain of the diſtemper affects them more than the danger of it. This I have often heard from ſeveral of the prieſts: and their words are confirmed by daily inſtances. For when the prieſts perform the laſt offices to dying perſons, their anſwers are delivered with that compoſure and ſerenity, as leave no doubt but the inward ſtate of their mind correſponds with theſe external appearances, being the principle and cauſe of them. The like is even ſeen in thoſe whom their crimes have brought to die by the hands of juſtice; and among many other examples, I happened myſelf to be an eye-witneſs of one. Whilſt I was at Quito, two malefactors were to be executed; one a Meſtizo or Mulatto, and the other an Indian: both having been brought into the priſon-chapel, I went to ſee them the night before the execution. The former was attended by ſeveral prieſts, who, in Spaniſh, exhorted him to die like a Chriſtian, and ſhew a becoming fervour in his love to God, faith, and contrition, and a deteſtation for the crimes he had committed. On which, his aſpect and whole deportment ſhewed a ſenſe of his condition. The Indian had alſo eccleſiaſtics about him, performing, in his own language, the like kind offices. But to all appearance he was leſs concerned even than thoſe about him, and ſeemed rather to be tilling a chacura, or tending a herd, than on the eve of eternity. His appetite was ſo far from leaving him, as was the caſe of his companion, that he was more eager, and after diſpatching his own, would have cleared his fellow ſufferer's plate; ſo that they were obliged to uſe ſome force to prevent his eating to exceſs on ſuch an exigency. He talked to the ſpectators with that eaſe and tranquillity, as if only going to take a ſhort journey. He anſwered to the exhortations without the leaſt confuſion: when he was ordered to kneel, he did ſo. The prayers and acts of devotion he alſo repeated word for word; but all the time rolling his eyes about, like a ſportive child, whoſe weak age is diverted by trifling objects. Thus he behaved till brought to the gibbet, where his companion had been carried before him: nor did he ſhew the leaſt alteration even in the awful moment. And this, to a civilized European ſo ſtrange, is no more than what is common among the Indians of theſe parts.

This indifference with regard to death, or intrepidity, if we may term it ſo, ſhews itſelf upon many other occaſions, particularly in the alacrity and reſolution with which they face themſelves before a bull, with no other view than for the bull to run full at

him, and toſs him ſo high in the air, that any other than an Indian would be killed by the fall. He however riſes without receiving any hurt, and is highly delighted with the victory, as he calls it, over the bull; though the victory ſeems to lie on the bull's ſide. When they fight in a body againſt others, they fall on, without any regard to ſuperiority of numbers, or who drops, or is wounded of their party. An action which in a civilized nation is counted the height of courage, is here merely the effect of barbariſm and want of thought. They are very dextrous in haltering a bull at full ſpeed; and, as they fear no danger, attack him with what we ſhould call great temerity. With the ſame dexterity they hunt bears: and a ſingle Indian, with only a horſe and his nooſe, never fails of getting the better of all the cunning and rage of this furious animal. This nooſe is made of cow hide, ſo thin as not to be ſeized by the beaſt's paws, and yet ſo ſtrong as not to be broken by the ſtruggles of the creature. On perceiving the bear, they immediately make towards him, whilſt he ſets up in order to ſeize the horſe. But the Indian being come within a proper diſtance, throws the nooſe about the creature's neck: then, with ſurpriſing celerity having taken two or three turns with the other end about the ſaddle, claps ſpurs to his horſe: in the mean time the bear, unable to keep pace with the horſe, and ſtruggling to clear himſelf of the nooſe, is choaked. This is conſidered as an achievement of admirable dexterity and bravery; and may be frequently ſeen in the province of Alauſi, near the eaſtern Cordillera, where theſe animals abound.

A great part of the ruſticity in the minds of the Indians muſt be imputed to the want of culture; for they, who in ſome parts have enjoyed that advantage, are found to be no leſs rational than other men; and if they do not attain to all the politeneſs of civilized nations, they at leaſt think properly. The Indians of the miſſion of Paraguay are, among others, remarkable inſtances of this; where, by the zeal, addreſs, and exemplary piety of the Jeſuits, a regular well-governed republic of rational men has been eſtabliſhed: and the people, from an ambulatory and ſavage manner of living, have been reduced to order, reaſon, and religion. One of the moſt effectual means for this was, the ſetting up ſchools for inſtructing the young Indians in Spaniſh, in which they alſo inſtruct their converts; and thoſe who are obſerved to be of a ſuitable genius, are taught Latin. In all the villages of the miſſions are ſchools for learning, not only to read and write, but alſo mechanic trades; and the artificers here are not inferior to thoſe of Europe. Theſe Indians, in their cuſtoms and intellects, are a different ſort of people from thoſe before mentioned. They have a knowledge of things; a clear diſcernment of the turpitude of vice, and the amiableneſs of virtue; and act up to theſe ſentiments: not that they have any natural advantage over the other: for I have obſerved throughout this whole kingdom, that the Indians of its ſeveral provinces through which I travelled are alike. And thoſe of Quito are not more deficient in their underſtandings, than thoſe of Valles or Lima: nor are theſe more acute or ſagacious than the natives of Chili and Arauco.

Without going out of the province of Quito, we have a general inſtance in confirmation of what I have advanced. For all the Indians brought up to the Spaniſh language are far more acute and ſenſible than thoſe who have ſpent their lives in little villages; and their behaviour more conformable to the dictates of a rational creature. They are men of abilities and ſkill, and have diveſted themſelves of many of their errors. Whence they are called Ladinos, i. e. knowing men; and if they retain any of the culpable practices of the former, it is from the infection of intercourſe, or from a miſtaken notion that they ſhould keep them up as tranſmitted to them from their anceſtors. Among theſe are chiefly diſtinguiſhed the barber-ſurgeons, who bleed with ſuch dexte-

rity, that in the opinion of Monſ. de Juſſieu and Monſ. Seniergues, ſurgeons to the French academiſts, they equal the moſt famous in Europe; and their intercourſe with perſons of a liberal education enlightens their underſtanding, ſo that they diſtinguiſh themſelves to great advantage among their countrymen. It ſeems to me unqueſtionable, that if in villages care was taken to inſtruct the Indians in Spaniſh, conformable to the laws of the Indies, beſides other acquirements, this people would have the benefit of converſing more frequently with the Spaniards, which would greatly improve their reaſon, and give them a knowledge of many things for which they have no word in their language. Accordingly it is obſerved that the Cholos (a name given to the Indian boys) becoming acquainted with the Spaniſh language, improve ſo much in knowledge, that they look on their countrymen as ſavages, and take upon themſelves the appellation of Ladinos.

I am very far from imagining that the Spaniſh language itſelf has the virtue of improving the intellects of the Indians; but only, that rational converſation with the Spaniards would lead them to a knowledge of many things: and conſequently they might be brought to a greater purity of faith and practice. Whereas the converſation among themſelves muſt be very low and confined: and what they have with the Spaniſh traders who underſtand their language, turns wholly on traffick. But if they underſtood the Spaniſh, they would daily receive new lights by converſing with travellers whom they attend, as well as from the inhabitants of the cities, their maſters, the prieſts, the corregidors, and others; and thus become more induſtrious and tractable, and acquainted with the nature of things of which before they had not ſo much as an idea.

Are not the differences and advantages evident among ourſelves, betwixt a young man whoſe ſtock of learning is his natural language, and him who is acquainted with others? What a ſuperiority of knowledge, diſcernment, and facility in the latter! Hence we may form ſome idea of the abject ſtate of the human mind among rude country people, who cannot exchange a word with a ſtranger, and never ſtir out of their village: whereas, when any one happens to go to a neighbouring town, he returns home with enlarged knowledge, and entertains all the village with his narratives: but if he had not underſtood the language ſpoken in it, he would have been little the better, nor able to relate the ſtrange things he ſaw and heard. This is the very caſe of the Indians; and I am of opinion, that to teach them the Spaniſh tongue would be the beſt means of improving their reaſon, and conſequently of making them better members of ſociety: and that my ſuperiors thought ſo, appears from the ordinances relating to America.

The Indians in general are robuſt, and of a good conſtitution. And though the venereal diſtemper is ſo common in this country, it is ſeldom known among them: the principal cauſe of which unqueſtionably lies in the quality of the juices of their body not being ſuſceptible of the venom of this diſtemper. Many however attribute it to a quality in the chicha, their common drink. The diſeaſe which makes the greateſt havock among them is the ſmall-pox: which is ſo fatal that few eſcape it. Accordingly it is looked upon in this country as a peſtilence. This diſtemper is not continual as in other nations, ſeven or eight years, or more, paſſing without its being heard of; but when it prevails, towns and villages are ſoon thinned of their inhabitants. This deſolation is owing partly to the malignity of the diſeaſe, and partly to the want of phyſicians and nurſes. Accordingly, on being ſeized with this diſtemper, they immediately ſend for the prieſt to confeſs; and die for want of remedy and relief. The like happens in all other diſtempers; and were they frequent, would be equally fatal,

theſe poor creatures dying for want of proper treatment and aſſiſtance; as is evident from the Creoles, who are alſo attacked by the diſtempers of the country. Some of the latter indeed die as well as of the former; but many more recover, having attendance and a proper diet: whereas the Indians are in want of every thing. What their houſes and apparel are, has already been ſeen. Their bed is the ſame in health and ſickneſs; and all the change in their food is in the manner of taking it, not in the ſpecies itſelf: for, however ill they may be, all they have is a ſmall draught of machca diſſolved in chicha; ſo that, if any one does get the better of a diſtemper, it is more owing to the happineſs of his conſtitution, than any relief he receives.

They are alſo ſubject to the bicho, or mal del valle; but this is ſoon cured. Sometimes, though ſeldom, they are alſo ſeized with tabardillos, or ſpotted fevers, for which they have an expeditious but ſingular cure. They lay the patient near the fire, on the two ſheep-ſkins which compoſe his bed; and cloſe by him place a jug of chicha. The heat of the fever, and that of the fire increaſing the other, cauſe in him ſuch a thirſt, that he is inceſſantly drinking; whereby the eruptions are augmented, and the next morning he is either in a fair way of recovery, or ſo bad as to be carried off in a day or two.

They who either eſcape, or recover from, theſe diſtempers, reach to an advanced age; and both ſexes afford many inſtances of remarkable longevity. I myſelf have known ſeveral, who, at the age of a hundred, were ſtill robuſt and active; which unqueſtionably muſt, in ſome meaſure, be attributed to the conſtant ſameneſs and ſimplicity of their food. But I muſt obſerve, that, beſides the different kinds already mentioned, they alſo eat a great deal of ſalt with agi, gathering the pods of it; and having put ſome ſalt in the mouth, they bite the agi, and afterwards eat ſome machca or camcha: and thus they continue taking one after another, till they are ſatisfied. They are ſo fond of ſalt in this manner of eating it, that they prefer a pod or two of agi with ſome ſalt to any other food.

After this account of the genius, cuſtoms, and qualities of the Indians, it will not be improper to ſpeak a word or two of their diverſions and occupations, premiſing, that this account does not extend to ſuch Indians as live in cities and towns, or that occupy any public office or trade, they being looked upon as uſeful to the public, and live independently. Others in the kingdom of Quito are employed in the manufactories, the plantations, or in breeding of cattle. In order to this, the villages are annually to furniſh thoſe places with a number of Indians, to whom their maſter pays wages as ſettled by the equity of the King: and at the end of the year they return to their villages, and are replaced by others. This repartition is called Mita. And though theſe alterations ſhould by order take place in the manufactories, yet it is not ſo: for being occupations of which none are capable but ſuch as have been properly trained up, the Indian families, which are admitted, ſettle there, and the ſons are inſtructed in weaving, from one generation to another. The earnings of theſe are larger than thoſe of the other Indians, as their trade requires greater ſkill and capacity. Beſides the yearly wages paid them by thoſe whom they ſerve, they have alſo a quantity of land, and cattle given them to improve. They live in cottages built near the manſion-houſe, ſo that every one of theſe forms a kind of village; ſome of which conſiſt of above an hundred and fifty families.

CHAP.

CHAP. VII. — *An hiſtorical Account of the moſt remarkable Mountains and Paramos, or Deſerts, in the Cordilleras of the Andes; the Rivers which have their Sources in theſe Mountains, and the Methods of paſſing them.*

I NOW come to the moſt remarkable paramos, or deſerts, of the kingdom of Quito, and the rivers flowing through that country, which, among many other natural curioſities, is peculiarly remarkable for the diſpoſition of the ground, and its prodigious maſſes of ſnow, that exceed all compariſon.

It has been before obſerved, that all the dependencies of the juriſdictions of this province are ſituated betwixt the two Cordilleras of the Andes; and that the air is more or leſs cold according to the height of the mountains, and the ground more or leſs arid. Theſe arid tracts are called Paramos, or deſerts; for though all the Cordilleras are dry or arid, ſome of them are much more ſo than others; for the continual ſnows and froſt render them abſolutely uninhabitable, even by the beaſts; nor is there a ſingle plant to be found upon them.

Some of theſe mountains, ſeemingly as it were founded on others, riſe to a moſt aſtoniſhing height, and are covered with ſnow even to their ſummits. The latter we ſhall more particularly treat of, as they are the moſt remarkable and curious objects.

The paramo of Aſuay, formed by the junction of the two Cordilleras, is not of this claſs; for, though remarkable for its exceſſive coldneſs and aridity, its height does not exceed that of the Cordilleras in general, and is much lower than that of Pichincha and Corazon. Its height is the degree of the climate, where a continual congelation or freezing commences; and as the mountains exceed this height, ſo are they perpetually covered with ice and ſnow; that from a determined point above Carabucu for inſtance, or the ſurface of the ſea, the congelation is found at the ſame height in all the mountains. From barometrical experiments made at Pucaguayco, on the mountain Cotopaxi, the height of the mercury was 16 inches $5\frac{1}{8}$ lines; whence we determined the height of that place to be 1027 toiſes above the plain of Carabucu, and that of the latter above the ſuperficies of the ſea about 1268. Thus the height of Pucaguayco, above the ſurface of the ſea, is 2291 toiſes. The ſignal which we placed on this mountain was thirty or forty toiſes above the ice, or point of continual congelation; and the perpendicular height from the commencement of this point to the ſummit of the mountain, we found, from ſome geometrical obſervations made for that purpoſe, to be about 880 toiſes. Thus the ſummit of Cotopaxi is elevated 3126 toiſes above the ſurface of the ſea, or ſomething above three geographical miles; and 639 toiſes higher than the top of Pichincha. Theſe are mountains I intend to ſpeak of; and the height of them all, conſidering the greatneſs of it, may be ſaid to be nearly equal.

In theſe Cordilleras, the moſt ſouthern mountain is that of Mecas, more properly called Sanguay, though in this country better known by the former, lying in the juriſdiction of the ſame name. It is of a prodigious height, and the far greateſt part of the whole ſurface covered with ſnow. From its ſummit iſſues a continual fire, attended with exploſions, which are plainly heard at Pintac, a village belonging to the juriſdiction of Quito, and near forty leagues diſtant from the mountain; and, when the wind is fair, the noiſe is heard even at Quito itſelf. The country adjacent to this volcano is totally barren, being covered with cinders ejected by it. In this Pacamo, the river Sangay has its ſource. This river cannot be ſaid to be ſmall, but after its junction with another, called the Upano, forms the Payra, a large river which diſcharges itſelf into the Maranon.

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In the ſame eaſtern Cordillera, about ſix leagues weſt of the town of Riobamba, is a very high mountain, with two creſts, and both of them covered with ſnow; that on the north is called Collanes, and that on the ſouth Altar; but the ſpace covered with ſnow is much leſs than that of Sangay and others of this claſs, its height being proportionally leſs.

North of the ſame town, and about ſeven leagues diſtant, is the mountain of Tunguragua, of a conical figure, and equally ſteep on all ſides. The ground, at its baſis, is ſomething lower than that of the Cordillera, eſpecially on the north ſide, where it ſeems to riſe from the plain on which the villages are ſituated. On this ſide, in a ſmall plain betwixt its ſkirts and the Cordillera, has been built the village of Bannos, ſo called from its hot medicinal baths, to which there is a great reſort from all parts of this juriſdiction. South of Cuenca, and not far from another village, called Bannos alſo, belonging to this juriſdiction, are other hot waters on the ſummit of an eminence, guſhing out through ſeveral apertures of four or five inches diameter, and of a heat which hardens eggs ſooner than water boiling over the fire. Theſe ſeveral ſtreams unite and form a rivulet, the ſtones and banks of which are tinged with yellow, and the water is of a brackiſh taſte. The upper part of this ſmall eminence is full of crevices, through which iſſues a continual ſmoke: a ſufficient indication of its containing great quantities of ſulphurous and nitrous ſubſtances.

North of Riobamba, inclining ſome degrees to the weſt, is the mountain of Chimborazo, by the ſide of which lies the road from Quito to Guayaquil. At firſt great numbers of the Spaniards periſhed in paſſing the vaſt and dangerous deſerts on its declivity; but being at preſent better acquainted with them, and inured to the climate, ſuch misfortunes are ſeldom heard of; eſpecially as very few take this road, unleſs there is the greateſt appearance of two or three days of calm and ſerene weather.

North of this mountain ſtands that of Carguayraſo, which has been already taken notice of.

North of Latacunga, and about five leagues diſtant from it, is Cotopaxi, which, towards the north-weſt and ſouth, extends itſelf beyond all the others; and which, as I have before obſerved, became a volcano at the time of the Spaniards firſt arrival in this country. In 1743, a new eruption happened, having been ſome days preceded by a continual rumbling in its bowels. An aperture was made in its ſummit, and three about the ſame height near the middle of its declivity, at that time buried under prodigious maſſes of ſnow. The ignited ſubſtances ejected on that occaſion, mixed with a prodigious quantity of ice and ſnow, melting amidſt the flames, were carried down with ſuch aſtoniſhing rapidity, that in an inſtant the plain, from Callo to Latacunga, was overflowed; and, beſides its ravages in bearing down houſes of the Indians and other poor inhabitants, great numbers of people loſt their lives. The river of Latacunga was the channel of this terrible flood, till, being too ſmall for receiving ſuch a prodigious current, it overflowed the adjacent country like a vaſt lake near the town, and carried away all the buildings within its reach. The inhabitants retired to a ſpot of higher ground behind their town, of which thoſe parts which ſtood within the limits of the current were totally deſtroyed. The dread of ſtill greater devaſtations did not ſubſide in three days, during which the volcano ejected cinders, while torrents of melted ice and ſnow poured down its ſides. The fire laſted ſeveral days, and was accompanied with terrible roarings of the wind ruſhing through the volcano, and greatly exceeded the great rumblings before heard in its bowels. At laſt all was quiet, neither fire nor ſmoke were ſeen, nor was there any noiſe to be heard till the following year, 1744; when, in the month of May, the flames increaſed, and forced their

paſſage

paſſage through ſeveral other parts on the ſides of the mountain; ſo that in clear nights, the flames being reflected by the tranſparent ice, formed a very grand and beautiful illumination. November the 30th, it ejected ſuch prodigious quantities of fire and ignited ſubſtances, that an inundation equal to the former ſoon enſued; ſo that the inhabitants of Latacunga gave themſelves over for loſt. And we ought to acknowledge the Divine protection, that it did not rage when we viſited it, having occaſion twice to continue ſome time on its declivity, as we have already ſhewn in the third chapter of the fifth book.

Five leagues to the weſt of this mountain ſtands that of Illiniſa, whoſe ſummit is alſo bifid, and conſtantly covered with ſnow. From it ſeveral rivulets derive their ſource; of which thoſe flowing from the northern declivity continue that direction: as thoſe from the ſouthern ſide alſo run ſouthward. The latter pay their tribute to the northern ocean, through the large river of the Amazons; while the former diſcharge themſelves into the South Sea, by the river of Emeralds.

North of Cotopaxi is another ſnowy mountain called Chinculagua, ſomething leſs than the former, though even that is not to be compared to the others.

The mountain of Cayamburo, which is one of the firſt magnitude, lies north, ſome degrees eaſterly, from Quito, at the diſtance of about eleven leagues from that city. There is neither appearance nor tradition of its having ever been a volcano. Several rivers iſſue from it, of which thoſe from the weſt and north run either into the river of Emeralds or that of Mira, but all fall into the South Sea; while theſe from the eaſt diſcharge themſelves into the river of the Amazons.

Beſides the torrents which precipitate themſelves from the ſnowy mountains, others have their ſource in the lower parts of the Cordilleras, and at their conflux form very large and noble rivers, which either pay the tribute to the north or ſouth ſeas, as we ſhall hereafter obſerve.

All the ſprings iſſuing from the mountains in the neighbourhood of Cuenca, on the weſt and ſouth ſide as far as Talqui, with thoſe of the eaſtern Cordillera, and northward as far as the Parama de Burgay, unite at about half a league eaſtward of a chapel called Jadan, under the care of the curate of Paute, where forming a river, and paſſing near the village from which it has its name, diſcharges itſelf into the river of the Amazons. It is ſo deep at Paute as not to be fordable, though very wide there.

From the mountains of Aſuay, Bueran, and the adjacent hills on the ſouth, is formed a very conſiderable river, over which are ſeveral bridges. It is called Cannar, from that town being the only one in its courſe; which it continues by Yocon to the bay of Guayaquil.

The north parts of the Paramo of Aſuay alſo gave riſe to many ſtreams, which, uniting with others coming from Mount Senegaulap, and the weſtern ſide of the eaſtern Cordillera, form the river Alauſi, which diſcharges itſelf into the ſame bay.

On the higheſt part of the Paramo de Tioloma, and near the ſignal one erected on this mountain for forming our ſeries of triangles, are four lakes, the three neareſt it being leſs than the other, which is about half a league in length, and called Coley; and the others, which are not greatly inferior, Pichabinnac, Pubillu, and Mactallan. From theſe is formed the river Cebadas, which runs near the village of that name, and is joined by another ariſing from the ſprings on the Paramo of Lalanguſo, and the ſtreams from the Colta lake, after which, inclining a little from the north towards the eaſt, paſſes by Pungala; and about a league from the village of Puni, is joined by the river Bamba, which has its ſource in the Parambo of Siſapongo. Near the town of Cobigies is another, which flows from the mountain of Chimborazo, and

which

which, after directing its courſe northward, till it is in an eaſt and weſt direction with the mountain of Tunguragua, it winds to the eaſt, and adds its water to thoſe of the river of the Amazons. At the town of Penipe, it is ſo deep and rapid as only to be croſſed over a bridge made of bujucos. Alſo before it reaches the town of Los Bannos, it is increaſed by the rivers Latacunga and Bato, together with all the ſtreams from both the Cordilleras, thoſe from the ſouthern ſummit of Eleniſa, and the ſouthern ſide of Ruminavi and Cotopaxi.

The ſtreams flowing from the north ſummit of Eleniſa, I have already mentioned to run northward; and with theſe all from the ſame Cordillera unite, together with thoſe iſſuing from the north and weſt ſides of the mountain Ruminavi, thoſe of Paſuchua; and from this junction riſes the river Amaguanna. The two laſt mountains ſtand north and ſouth from each other, in an intermediate ſpace of the Cordilleras. From the north ſide of Cotopaxi the Paramo of Chinchulagua, which is alſo covered with ſnow, and the Cordillera de Guamani, other ſtreams have their riſe, and from their conflux is formed the river Ichubamba, which, running northward, joins the Amaguanna, a little to the north of Cono-Coto. Afterwards it receives the rivulets iſſuing from the eaſtern Cordillera, and changes its name to that of Guayllabamba. The waters which have their ſource in the weſtern part of Cayamburo, and the ſouthern part of Moxanda, form another river called Piſque, which firſt runs towards the weſt, and joining the Guayllabamba, takes the name of Alchipichi, which, a little to the north of St. Antonio, in the juriſdiction of Quito, is ſo broad and rapid, that there is no paſſing it but in a tarabita, which we ſhall preſently deſcribe. From hence it continues its courſe northwards, and at laſt falls into the river of Emeralds.

The mountain of Majanda ſtands in the interval between the Cordilleras; and though it has only one ſide as it were, it is divided into two ſummits, one eaſtward and the other weſtward; and from both theſe runs a ſmall Cordillera, which, afterwards joining, incloſe this valley.

From the ſide of the mountain iſſue two large torrents, which meet in the lake of St. Pablo: from whence flows a river, which, being joined by others from the ſprings of the weſtern Cordillera, form one ſtream, and after being increaſed by another brook from the heights of Oezillo, give riſe to the river which waſhes the town of St. Miguel de Ibarra; after which it takes the name of Mira, and diſcharges itſelf into the South Sea, a little to the north of the river of Emeralds.

When the rivers are too deep to be forded, bridges are made at the moſt frequented places. Of theſe there are two kinds beſides thoſe of ſtone, which are very few: the former of wood, which are the moſt common; and the latter of bujucos. With regard to the firſt, they chooſe a place where the river is very narrow, and has on each ſide high rocks. They conſiſt of only four long beams laid cloſe together over the precipice, and form a path about a yard and a half in breadth, being juſt ſufficient for a man to paſs over on horſeback; and cuſtom has rendered theſe bridges ſo natural to them, that they paſs them without any apprehenſion. The ſecond, or thoſe formed of bujucos, are only uſed where the breadth of the river will not admit of any beams to be laid acroſs. In the conſtruction of theſe, ſeveral bujucos are twiſted together, ſo as to form a kind of large cable of the length required. Six of theſe are carried from one ſide of the river to the other, two of which are conſiderably higher than the other four. On the latter are laid ſticks in a tranſverſe direction, and, over theſe, branches of trees, as a flooring; the former are faſtened to the four which form the bridge, and by that means ſerve as rails for the ſecurity of the paſſenger, who would otherwiſe be in no ſmall danger from the continual oſcillation. The bejuco bridges in this country are

only for men, the mules ſwim over the rivers; in order to which, when their loading is taken off, they are drove into the water near half a league above the bridge, that they may reach the oppoſite ſhore near it, the rapidity of the ſtream carrying them ſo great a diſtance. In the mean time, the Indians carry over the loading on their ſhoulders. On ſome rivers of Peru there are bejuco bridges ſo large, that droves of loaded muſes paſs over them; particularly the river Apurimac, which is the thoroughfare of all the commerce carried on between Lima, Cuſco, La Plata, and other parts to the ſouthward.

Some rivers, inſtead of a bejuco bridge, are paſſed by means of a tarabita; as is the caſe with regard to that of Alchipichi. This machine ſerves not only to carry over perſons and loads, but alſo the beaſts themſelves; the rapidity of the ſtream, and the monſtrous ſtones continually rolling along it, rendering it impracticable for them to ſwim over.

The tarabita is only a ſingle rope made of bejuco, or throngs of an ox's hide, and conſiſting of ſeveral ſtrands, and about ſix or eight inches in thickneſs. This rope is extended from one ſide of the river to the other, faſtened on each bank to ſtrong poſts. On one ſide is a kind of wheel, or winch, to ſtraighten or ſlacken the tarabita to the degree required. From the tarabita hangs a kind of leathern hammock capable of holding a man; and is ſuſpended by a clue at each end. A rope is alſo faſtened to either clue, and extended to each ſide of the river, for drawing the hammock to the ſide intended. A puſh at its firſt letting off ſends it quickly to the other ſide.

For carrying over the mules, two tarabitas are neceſſary, one for each ſide of the river, and the ropes are much thicker and ſlacker. On this rope is only one clue, which is of wood, and by which the beaſt is ſuſpended, being ſecured with girts round the belly, neck, and legs. When this is performed, the creature is ſhoved off, and immediately landed on the oppoſite ſide. Such as are accuſtomed to be carried over in this manner, never make the leaſt motion, and even come of themſelves to have the girts faſtened round them; but it is with great difficulty they are firſt brought to ſuffer the girts to be put round their bodies, and when they find themſelves ſuſpended, kick and fling, during their ſhort paſſage, in a moſt terrible manner. The river of Alchipichi may well excite terror in a young traveller, being between thirty and forty fathoms from ſhore to ſhore; and its perpendicular height, above the ſurface of the water, twenty-five fathoms.

The roads of this country are ſuitable to the bridges; for though there are large plains between Quito and the river Bamba, and the greateſt part of the road between the river Bamba and Alauſi, and even to the north of that city, lies along the mountains, yet theſe are interrupted by fruitful breaches, the acclivities and declivities of which are not only of a great length and very troubleſome, but alſo dangerous. In ſome places there is a neceſſity for travelling along tracts on the declivities of mountains, which are ſometimes ſo narrow as hardly to allow room for the feet of the beaſt; part of its body, and that of the rider, being perpendicular over a torrent fifty or ſixty fathoms beneath the road. So that certainly nothing but abſolute neceſſity, there being no other road, and long cuſtom, can get the better of that horror which muſt affect the perſon at the ſight of ſuch imminent danger; and there are too many inſtances of travellers loſing their effects, if not lives, their whole dependance being on the ſure foot of the mule. This danger is indeed, in ſome meaſure, compenſated by the ſecurity of the roads; ſo that we ſee here what none of the civilized nations can boaſt of, namely, ſingle perſons travelling, unarmed, with a great charge of gold and ſilver, but equally ſafe as if ſtrongly guarded. If the traveller happens to be fatigued

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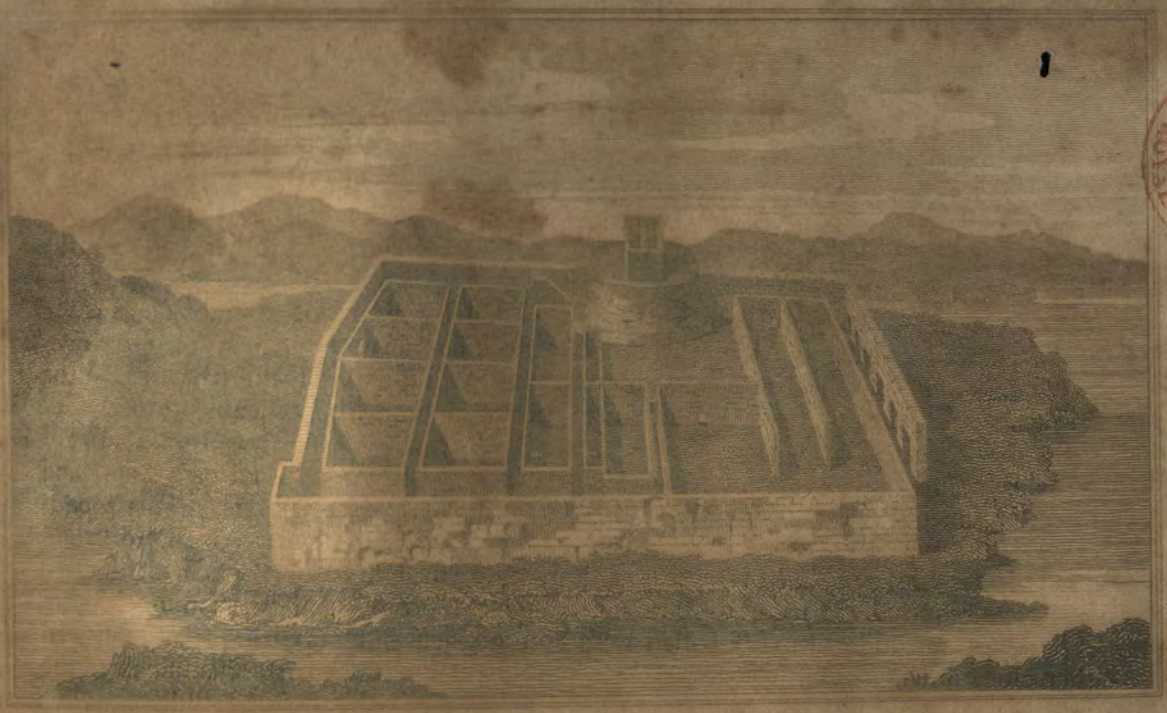

Palace of the Incas at Canar

in a defert, he lays him down, and fleeps without the leaſt apprehenſion of danger. Or if he takes up his lodgings in a tambo, or inn, he ſleeps with the ſame ſecurity, though the doors are always open: nor is he ever moleſted on the road. This is a convenience ſo favourable to commerce and intercourſe, that it were greatly to be wiſhed the ſame ſecurity could be eſtabliſhed in the other parts of the world.

CHAP. VIII.—*Continuation of the Account of the Paramos, or Deſerts; with an Account of the Beaſts, Birds, and other Particulars of this Province.*

TO conclude my obſervations on the Paramos, which it was neceſſary to interrupt, in order to give a ſhort account of the rivers, bridges, and roads, I ſhall obſerve, that theſe parts not being of a height ſufficient to expoſe them to an eternal froſt, they are covered with a kind of ruſh reſembling the geniſta Hiſpanica, but much more ſoft and flexible. It is about half or three quarters of a yard in height, and, when of its full magnitude, its colour is like that of dried geniſta Hiſpanica. But where the ſnow remains ſome time on the ground without melting, none of theſe plants growing in habitable climates are found. There are indeed others, though few, and even theſe never exceed a certain height. Above this tract, nothing is ſeen but ſtones and ſand all the way up to the beginning of the ice.

In theſe parts, where the above ruſh is the principal product, the ſoil is as little adapted to cultivation; but produces a tree, which the inhabitants call Quinual, the nature of which very well ſuits the roughneſs of the climate. It is of middling height, tufted, and the timber ſtrong; its leaf of a long, oval form, thick, and of a deep green colour. Though it bears the ſame name as the grain called Quinua, of which we have ſpoken elſewhere, and which grows in great plenty, the latter is not, however, the production of this tree; nor has the plant, on which it grows, any thing in common with it.

The climate proper for quinua is alſo adapted to the produce of a little plant, which the Indians call Palo de Luz. It is commonly about the height of two feet, conſiſting of ſtalks which grow out of the ground, and proceed from the ſame root. Theſe ſtems are ſtraight, and ſmooth up to the top, from which grow little branches with very ſmall leaves. All of theſe nearly riſe to the ſame height, except the outer ones, which are of a leſs ſize: it is cut cloſe to the ground, where it is about three lines in diameter; and being kindled whilſt green, gives a light equal to that of a torch, and, with care taken to ſnuff it, laſts till the whole plant is burnt.

In the ſame place grows alſo the achupalla, conſiſting of ſeveral ſtalks, ſomething reſembling thoſe of the ſabilla; and as the new ſhoot up, the moſt outward grow old and dry, and form a kind of trunk, with a great number of horizontal leaves, hollow in the middle; and this, when not very large, is eatable like that of the palmitos.

Towards the extremity of the part where the ruſh grows, and the cold begins to increaſe, is found the vegetable called Puchugchu, with round leaves growing together ſo as to repreſent a very ſmooth bulb, having nothing in them but the roots: and as theſe increaſe, the outward caſe of leaves dilates into the form of a round loaf, uſually a foot or two in height, and the ſame in diameter: on this account, they are alſo called Loaves or Onions. When in their vigour, they are of ſo hardy a nature, that a ſtamp with a man's foot, or the tread of a mule, makes no impreſſion on them; but when once fully ripe, they are eaſily broken. In the middle ſtate, betwixt the full ſtrength of their reſiſtance and the decay of their roots by age, they have an elaſtic quality,

yielding with a tremulous motion to the preſſure of the foot, and on its being taken off, recover their form.

In the places where the puchugchu thrives beſt, alſo grows the canchalagua, the virtues of which are well known in Europe. The form of this is like a very thin ruſh or ſtraw; bears no leaves, but has a few ſmall ſeeds at its extremity. It is medicinal, and particularly uſeful as a febrifuge; its taſte is bitter, which it eaſily communicates either by infuſion or decoction. In this country, it is chiefly uſed as a ſweetener of the blood, though thought to be of a hot quality. It grows in great quantities, and is found both among the puchugchu, and in other parts on the heath, where the cold is leſs intenſe.

Another plant, not leſs valuable for its virtues, and growing chiefly in thoſe dreadful deſerts where, either from the ſeverity of the cold or perpetual ſnows, or from the badneſs of the ſoil, nothing elſe is produced, is found the ſo celebrated calaguala; its height is about ſix or eight inches, and naturally ſpreads itſelf in thin ſtems along the ſand, or climbs up the rocks. Theſe branches, in their form, reſemble the fibril of the roots of the other plants, being not above two or three lines in their greateſt thickneſs, round, and full of little knots, where they bend round like the tendrils of a vine. They have a thin pellicle of a looſe texture, which of itſelf ſeparates when the plant dries. The moſt ſingular virtue of this plant is for all kinds of impoſthumes, internal or external, which it diſcuſſes and heals in a very little time. The manner of adminiſtering it is by decoction, of which a very little ſerves; or, after bruiſing it, to infuſe it in wine, and take it faſting for three or four days, and no longer, its good effects in that time being uſually conſpicuous; and being extremely hot, it might prove pernicious, if taken in greater quantity than abſolutely neceſſary; for which reaſon only, three or four pieces, each about an inch and a half in length, are uſed for the infuſion, and with ſuch ſort of wine as will beſt correct its bitterneſs. Though this excellent herb grows in moſt of thoſe frozen deſerts, yet the beſt is that in the ſouthern province of Peru. The leaves are very ſmall, and the few it bears grow contiguous to the ſtem.

The paramos, or barren heaths, likewiſe yield the contrayerva, which makes a part of the materia medica in Europe, and is conſidered as an excellent alexipharmic. This is alſo a creeping plant, with a leaf, of about three or four inches in length, and a little more than one in breadth, thick, the back part of it exceeding ſoft to the touch, and of a deep green. The other ſide is alſo ſmooth, but of a light green. On its ſtem grows a large bloſſom, conſiſting of many flowers inclining to a violet colour: but neither theſe nor the other flowers, which grow in great abundance in theſe countries, according to its ſeveral climates, are much eſteemed; ſo that, when wanted, the readieſt way is to ſend and have them cut from the plant.

Though the ſeverity of the air on the deſerts is ſuch, that all animals cannot live there, yet they afford many beaſts of venery, which feed on the ſtraw or ruſh peculiar to thoſe parts; and ſome of theſe creatures are met with on the higheſt mountains, where the cold is intolerable to the human ſpecies. Among the ruſhes are bred great numbers of rabbits, and ſome foxes, both which, in their appearance and qualities, reſemble thoſe of Carthagena and other parts of the Indies.

The only birds known in thoſe rigorous places are partridges, condors, and zumbadores or hummers. The partridges differ ſomething from thoſe of Europe; they nearly reſemble the quail, and are very ſcarce.

The condor is the largeſt bird in theſe parts of the world; its colour and appearance reſemble thoſe of the galinazos, and ſometimes it ſoars from the higheſt mountains ſo

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as to be almoſt out of ſight: and by its being ſeldom ſeen in low places, a ſubtile air ſeems beſt to agree with it; though ſome, which have been tamed when young, live in the villages and plantations. Like the galinazos, they are extremely carnivorous, and are known frequently to ſeize and fly away with lambs that feed on the heaths: of this I happened to ſee an inſtance, in my way down from the ſignal of Lalanguſo toward the plantation of Pul, lying near the bottom of thoſe mountains. Obſerving, on a hill adjoining to that where I was, a flock of ſheep in great confuſion, I ſaw one of theſe condors flying upwards from it with a lamb betwixt its claws; and, when at ſome height, dropt it; then, following it, took it up, and let it fall a ſecond time, when it winged its way out of ſight, for fear of the Indians, who, at the cries of the boys and barkings of the dogs, were running towards the place.

In ſome deſerts this bird is common; and, as it preys on the flocks, the Indians are not wanting in their endeavours to catch them. One of the ways is, to kill a cow, or other beaſt, when of no further uſe, and to rub the fleſh with the juice of ſome potent herbs, which they afterwards carry away: for otherwiſe the bird, ſenſible of them by natural inſtinct, would not touch the fleſh. Further, to take off the ſmell, they bury the fleſh till it becomes putrid, and then expoſe it; when the condors, allured by the ſmell of the carcaſe, haſten and greedily feed on it, till the herbs operate ſo as to render them quite ſenſeleſs and incapable of motion: the Indians ſeize the opportunity, and deſtroy them. They likewiſe catch them with ſprings laid near ſome fleſh: but ſuch is the force of this bird, that, with a ſtroke of its wing, it ſometimes knocks down the man who approaches it. Their wing alſo ſerves them as a ſhield, by which they ward off blows, without receiving any hurt.

The zumbador, or hummer, is a night bird, peculiar to the mountainous deſerts; and they are ſeldom ſeen, though frequently heard, both by the ſinging, and a ſtrange humming made in the air by the rapidity of their flight, and which may be heard at the diſtance of fifty toiſes; and when near, is louder than that of a rocket. Their ſinging may indeed be called a kind of cry, reſembling that of night-birds. In moonlight nights, when they more frequently make their appearance, we have often watched to ſee their ſize and the celerity of their motion; and though they paſſed very near us, we never were able to form any idea of their magnitude; all that we could ſee, was a white line which they formed in their flight through the air; and this was plainly perceivable, when at no great diſtance. We promiſed the Indians a reward if they would procure us one; but all they could do was to procure a young one, ſcarce fledged, though it was then of the ſize of a partridge, and all over ſpeckled with dark and light brown; the bill was proportionate and ſtrait; the aperture of the noſtrils much larger than uſual, the tail ſmall, and the wings of a proper ſize for the body. According to our Indians, it is with the noſtrils that it makes ſuch a loud humming. This may, in ſome meaſure, contribute to it; but the effect ſeems much too great for ſuch an inſtrument; eſpecially as at the time of the humming it alſo uſes its voice.

Among the valleys and plains formed by theſe mountains, are many marſhy places, occaſioned by the great variety of ſmall ſtreams of water; and in theſe breed great numbers of a bird called Canclon, a name perfectly expreſſive of its manner of ſinging. It very much reſembles the bandurria, though the ſpecies be different: it exceeds the bigneſs of a large gooſe, has a long thick neck, and a head ſomething reſembling that bird. The bill is ſtraight and thick, and its legs and feet thick and ſtrong. The outward feathers of the wing are of a dark brown, thoſe of the inſide of a pure white; but the other parts of the body ſpotted. At the meeting of the wings they have two ſpurs, projecting to the length of an inch and a half, as their defence. The male and female are inſeparable, whether flying, or on the ground, where they moſtly keep themſelves,

ſelves, never taking flight except acroſs a valley, or when purſued. The fleſh eats very well, after being kept three or four days to leſſen its natural toughneſs. Theſe birds are alſo found in places leſs cold than the mountainous deſerts; but here, indeed, they are ſomething different, having on the forehead a kind of cartilaginous horn; but both theſe and the other ſpecies have a creſt on their head.

The gardens of all kinds in the villages are much frequented by a bird very remarkable both for its ſmallneſs and the vivid colours of its feathers. It is generally called Picaflores, or flower-pecker, from its hovering over them, and ſucking their juices without lacerating or ſo much as diſordering them. Its proper name is Quinde, though it is alſo known by thoſe of Rabilargo and Siſongero, and in England by that of humming-bird. Its whole body, with its plumage, does not exceed the bigneſs of a middle-ſized nutmeg; the tail is uſually near three times the length of the whole body, yet has but few feathers; its neck is ſhort; the head proportioned, with a very briſk eye; the bill long and ſlender, white at the beginning and black at the end: the wings are alſo long and narrow. Moſt of the body is green, ſpotted with yellow and blue. Some are higher coloured than others; and all are variegated with ſtreaks, as it were, of gold. Of this bird, alſo, there are various ſpecies, diſtinguiſhed by their ſize and colours. This is thought to be the ſmalleſt of all known birds; the female lays but two eggs at a time, and thoſe no bigger than peas. They build in trees, and the coarſeſt materials of their neſts are the fineſt ſtraws they can pick up.

In the parts of this country, which are neither taken up by mountains nor foreſts, only tame animals are met with; whence it is probable, that formerly its native ſpecies were but very few; moſt of theſe having been introduced by the Spaniards, except the llama, to which the Indians added the name of runa, to denote an Indian ſheep, that beaſt being now underſtood by the runa-llama; though, properly, llama is a general name importing beaſt, in oppoſition to the human ſpecies. This animal, in ſeveral particulars, reſembles the camel: as in the ſhape of its neck, head, and ſome other parts; but has no bunch, and is much ſmaller; cloven-footed, and different in colour: for though moſt of them are brown, ſome are white, others black, and others of different colours: its pace reſembles that of a camel, and its height equal to that of an aſs betwixt an year and two old. The Indians uſe them as beaſts of carriage; and they anſwer very well for any load under a hundred weight. They chiefly abound in the juriſdiction of Riobamba, there being ſcarce an Indian who has not one for carrying on his little traffick from one village to another. Anciently the Indians uſed to eat the fleſh of them, and ſtill continue to make that uſe of thoſe which are paſt labour. They ſay there is no difference betwixt it and mutton, except that the former is ſomething ſweeter; it is a very docile creature, and eaſily kept. Its whole defence is, to eject from its noſtrils ſome viſcoſities, which is ſaid to give the itch to any on which they fall; ſo that the Indians, who firmly believe this, are very cautious of provoking the llama.

In the ſouthern provinces of Peru, namely, in Cuſco, La Paz, La Plata, and the adjacent parts, are two other animals, not very different from the llama: theſe are the vicuna and the guanaco; the only difference between them being, that the vicuna is ſomething ſmaller, its wool ſhorter and finer, and brown all over the body, except the belly, which is whitiſh. The guanaco, on the contrary, is much larger, its wool long and harſh; but the ſhape of both is pretty near alike. Theſe laſt are of great ſervice in the mines, carrying metals in ſuch rugged roads as would be impracticable to any other beaſt.

In the houſes is bred a creature called chucha; but in the other ſouthern provinces it is known by the Indian name of muca-muca; it reſembles a rat, but conſiderably bigger, with a long ſnout, not unlike that of a hog; the feet and tail are exactly the ſame

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as thoſe of a rat, but the hair is longer and black. In the lower part of its belly, from the beginning of the ſtomach to the natural orifice of the ſex, runs a ſort of bag, formed of two membranous ſkins, which growing from the lower ribs, and joining in the middle, follow the conformation of the belly, which they incloſe: in the middle of it is an aperture extending about two-thirds of its length, and which the creature opens and ſhuts at pleaſure by means of muſcles, doubtleſs formed by nature for this purpoſe. After bringing forth her young, ſhe depoſits them in this bag, and carries them as a ſecond pregnancy till they are fit for weaning; ſhe then relaxes the muſcles, and the young come out as a ſecond brood. Monſieur de Juſſieu and M. Seniergues, when at Quito, made an experiment, at which Don George Juan and I were both preſent. The dam had been dead three days, and began to ſmell very diſagreeably; the orifice of the bag remained ſtill ſhut, but the young ones we found full of life within, each with a teat in his mouth, from which, at the time we took them off, ſome ſmall drops of milk came out. The male I never ſaw: but was told that it was of the ſame bigneſs and ſhape as the female, except the bag; the teſticles of this creature are of an enormous diſproportion, being of the ſize of a hen's egg. It is a very fierce enemy to all tame birds, and does a great deal of damage in the maize fields. The Indians eat the fleſh, and ſay it is not at all diſagreeable: but few Europeans have much veneration for their taſte or cookery.

CHAP. IX. — *Phænomena obſerved in the mountainous Deſerts and other Parts of this Province. Hunting Matches. Dexterity of the American Horſes.*

TO the before-mentioned particulars of the mountainous deſerts, I ſhall ſubjoin the phenomena ſeen there, as ſubjects equally meriting the curioſity of a rational reader. At firſt we were greatly ſurpriſed with two, on account of their novelty; but frequent obſervations rendered them familiar. One we ſaw in Pambamarca on our firſt aſcent thither; it was a triple circular iris. At break of day the whole mountain was encompaſſed with very thick clouds, which the riſing of the ſun diſperſed ſo far as to leave only ſome vapours of a tenuity not cognizable by the ſight: on the oppoſite ſide to that where the ſun roſe, and about ten toiſes diſtant from the place where we were ſtanding, we ſaw, as in a looking-glaſs, the image of each of us, the head being as it were the centre of three concentric iris's; the laſt or moſt external colours of one touched the firſt of the following; and at ſome diſtance from them all, was a fourth arch entirely white. Theſe were perpendicular to the horizon; and as the perſon moved, the phenomenon moved alſo in the ſame diſpoſition and order. But what was moſt remarkable, though we were ſix or ſeven together, every one ſaw the phenomenon with regard himſelf, and not that relating to others. The diameter of the arches gradually altered with the aſcent of the ſun above the horizon; and the phenomenon itſelf, after continuing a long time, inſenſibly vaniſhed. In the beginning, the diameter of the inward iris, taken from its laſt colour, was about five degrees and a half, and that of the white arch, which circumſcribed the others, not leſs than ſixty-ſeven degrees. At the beginning of the phenomenon, the arches ſeemed of an oval or elliptical figure, like the diſk of the ſun, and afterwards became perfectly circular. Each of the leaſt was of a red colour, bordered with an orange, and the laſt followed by a bright yellow, which degenerated into a ſtraw colour; and this turned to a green. But in all, the external colour remained red.

On the mountains we alſo had frequently the pleaſure of ſeeing arches formed by the light of the moon; particularly one on the 4th of April 1738, about eight at night, on the

the plain of Turubamba. But the moſt ſingular was one ſeen by Don George Juan, on the mountain of Quinoa-loma, on the 22d of May 1739, at eight at night. Theſe arches were entirely white, without the mixture of any other colour, and formed along the ſlope or ſide of a mountain. That which Don George Juan ſaw conſiſted of three arches, touching in the ſame point: the diameter of the inner arch was ſixty degrees; and the breadth of the white mark, or delineation, took up a ſpace of five degrees; the two others were, in every reſpect, of the ſame dimenſions.

The atmoſphere, and the exhalations from the ſoil, ſeem more adapted than in any other place for kindling the vapours; meteors being here more frequent, and often very large, laſt longer, and are nearer the earth, than the like phenomena ſeen in other parts. One of theſe inflammations, of a very extraordinary largeneſs, was ſeen at Quito whilſt we were there. I cannot exactly determine the date of its appearance, the paper on which I had wrote an account of it being loſt, when I was taken by the Engliſh: but the particulars, which I remember, are as follow:

About nine at night, a globe of fire appeared to riſe from the ſide of Mount Pichincha; and ſo large, that it ſpread a light all over the part of the city facing that mountain. The houſe where I lodged looking that way, I was ſurprized with an extraordinary light darting through the crevices of the window ſhutters. On this appearance, and the buſtle of the people in the ſtreets, I haſtened to the window, and came time enough to ſee it in the middle of its career, which continued from weſt to ſouth, till I loſt ſight of it, being intercepted by the mountain of Panecillo, which lies in that quarter. It was round, and its apparent diameter about a foot. I ſaid that it ſeemed to riſe from the ſides of Pichincha: for to judge from its courſe, it was behind that mountain where this congeries of inflammable matter was kindled. In the firſt half of its viſible courſe, it emitted a prodigious effulgency, then gradually began to grow dim, ſo that at its occultation behind the Panecillo, its light was very faint.

I ſhall conclude this chapter with an account of the manner of hunting, which is the only diverſion in the country, and in which they paſſionately delight. Indeed the moſt remarkable circumſtance in it is the ardour and intrepidity of the hunters; and which a ſtranger, at firſt, will naturally conſider as mere raſhneſs, till he ſees perſons of the greateſt prudence, after having made one ſingle trial, join in theſe parties, truſting entirely to their horſes; ſo that it is rather to be termed a dextrous and manly exerciſe, and proves the ſuperiority both of the riders and horſes to the moſt celebrated in Europe; and that the boaſted fleetneſs of the latter is dullneſs, when compared to the celerity with which thoſe of America run over mountains and precipices.

The hunting is performed by a great number of people, who are divided into two claſſes, one on horſeback, the other on foot, who are generally Indians. The buſineſs of the latter is, to rouſe the beaſt, and that of the others, to hunt it. They all, at break of day, repair to the place appointed, which is generally on the ſummit of the paramos. Every one brings his greyhound; and the horſemen place themſelves on the higheſt peaks, whilſt thoſe on foot range about the breaches, making a hideous noiſe in order to ſtart the deer. Thus the company extend themſelves three or four leagues, or more, according to their numbers. On the ſtarting of any game, the horſe which firſt perceives it ſets off; and the rider, being unable to guide or ſtop him, purſues the chace ſometimes down ſuch a ſteep ſlope, that a man on foot, with the greateſt care, could hardly keep his legs; from thence up a dangerous aſcent, or alongſide of a mountain, that a perſon, not uſed to this exerciſe, would think it much ſafer to throw himſelf out of the ſaddle, than commit his life to the precipitate ardour of the horſe.

Thus

Thus they continue till they come up with the game, or till, after following it four or five leagues, the horſes tire. Thoſe in the other ſtations, on perceiving one horſe on its ſpeed, immediately ſtart; and thus the whole company are ſoon in motion; ſome haſtening to meet the beaſt, and others following the chace; ſo that in ſuch multitudes it is very ſeldom his good fortune to eſcape. The horſes here do not wait for the riders to animate them; they ſet forward immediately on ſeeing another on full ſpeed on a different mountain, or at the ſhouts of the huntſmen, or cries of the dogs, though at ever ſo great a diſtance, or even by obſerving in a dog the leaſt motion that he ſcents the game. One ſuch circumſtance is ſufficient for theſe horſes: and it then becomes prudence in the rider to give him his way, and at the ſame time to let him feel the ſpur to carry him over the precipices. But, at the ſame time, let him be very attentive to keep the ſaddle; for on ſuch declivities the leaſt neglect throws the rider over the horſe's head: the conſequence of which, either by the fall, or by being trampled upon, is generally fatal. Theſe horſes are called paramos, being backed and exerciſed in running over ſuch dangerous places. Their uſual pace is trotting. There is indeed another ſpecies called aguilillas, equally remarkable for their ſwiftneſs and ſecurity. Though the aguilillas only pace, they equal the longeſt trot of the others: and ſome of them are ſo fleet, that no other horſe can match them even at full gallop. I once was maſter of one of this kind; and which, though none of the racers, often carried me in twenty-nine minutes from Callao to Lima, which is two meaſured leagues and a half, though notwithſtanding great part of the road was very bad and ſtony; and in twenty-eight or twenty-nine minutes brought me back again, without ever taking off the bridle. This I can aſſert from my own experience. Theſe horſes are very ſeldom known to gallop or trot; and it is a very difficult matter even to bring them to it by teaching, though the trotting horſes ſoon come into pacing. The pace of the aguilillas is by lifting up the fore and hind leg of the ſame ſide at once; but inſtead of putting the hinder foot in the place where the fore foot was, as is the uſual way of other pacing horſes, they advance it farther, equal to that on the contrary ſide, or ſomething beyond it; that thus, in each motion, they advance twice the ſpace of the common horſes. Beſides, they are very quick in their motions, and remarkably eaſy to the rider.

Other horſes, not of this breed, are taught the ſame manner of pacing, and perform it with eaſe and expedition, as thoſe in whom it is a natural quality: neither ſpecies are handſome, but very gentle and docile; full of ſpirit and intrepidity.

CHAP. X. — *A ſhort Account of the many Silver and Gold Mines in the Province of Quito; and the Method of extracting the Metal.*

THE chief riches of the kingdom of Peru, and the greateſt part of the Spaniſh poſſeſſions on the continent, being the mines, which ſpread their ramifications through the whole extent of theſe countries; that province is juſtly accounted the moſt valuable where the mines are moſt numerous, or at leaſt, where the greateſt quantity of metal is procured. The fertility of the ſoil, the exuberant harveſts with which the labourer's toil is rewarded, would loſe much of their advantage, had not the precious contents in the bowels of the earth exerciſed the ingenuity of the miner. The fertile paſtures which ſo richly cover the country, are diſregarded, if the ſtones upon trial are not found to anſwer the avidity of the artiſts: and the plentiful productions of the earth, which are in reality the moſt excellent gifts of nature, for the ſupport and comfort of human life, are undervalued and ſlighted, unleſs the mountains contain rich veins of a fine ſilver.

Thus, contrary to the nature of things, the name of rich is beſtowed on that province where moſt mines are worked, though ſo entirely deſtitute of the other more neceſſary products, that the great number of people employed in the mines are under a neceſſity of being ſupplied from other parts: and thoſe provinces, whoſe paſtures are covered with flocks and herds, whoſe fields yield plentiful harveſts, and their trees bend beneath rich fruits, under the fertilizing influence of a benign climate, but deſtitute of mines, or forgotten through neglect, are looked upon as poor; and indeed, except in the plentiful ſurface of the earth, make no wealthy appearance. This is the caſe here; and the reaſon of it is evident: thoſe countries are as ſtaples for ſilver and gold, which are taken from the bowels of the earth only to be ſent into diſtant nations with all poſſible diligence, their native country being that where they make the leaſt ſtay: and the ſame practice is obſerved to be carried on, no leſs eagerly, throughout every town and village in the Indies: for, as they cannot well do without European goods, the gold and ſilver of America muſt be paid in exchange for them.

In a province where no mines are worked, the fertility of the ſoil, and goodneſs of its products are neglected; for the ſcarcity of money reduces them to ſuch a low price, that the huſbandman, for want of an incentive to any aſſiduous induſtry, inſtead of ſowing and planting all he could, conſults only what he may vend according to the common conſumption, beſides what is neceſſary for the ſupport of his family. And as the whole return of what he receives for his fruits and grain, even when he is ſo fortunate as to export any, goes away again in exchange for European goods, the ſcarcity of money ſtill continues, and he is ſo poor as ſometimes poſſibly to want even neceſſaries. It is otherwiſe in provinces abounding with mines; for theſe being the objects of the attention and labours of its inhabitants, there is a continual circulation of money. What is carried out, is replaced by that drawn from the mines. Nor are they even in want of European goods, or the produce of the more fertile countries, plenty of traders from all parts reſorting to places near the mines, as the original ſeats of gold and ſilver. But that province where the richneſs of the mines and of the ſoil concenter, is doubtleſs preferable to thoſe where nature has given only one of theſe advantages. Quito may juſtly be claſſed among the former, being that province which of all Peru is the moſt fertile in grain and fruits; the moſt populous, and epecially in Spaniards; abounds moſt in cattle; has the moſt manufactures, and excels in them; and in mines, if not the richeſt, yet equal to any of the others, on which nature has poured out theſe her choiceſt favours. But it ſeems as if nature, unwilling to diſtinguiſh this by an abſolute happineſs, has denied it a ſuitable concourſe of people, that it might not at once have a full enjoyment of all the benefits laviſhed on it, there being no reaſon which can diſculpate the inhabitants of Quito in the neglect of the mines. For though the number of them diſcovered be very great, and afford a very probable conjecture that the Cordilleras muſt contain many more; yet very few are worked, particularly within theſe juriſdictions. Thus the riches of the country lie buried, and without them the fertility of the ſoil cannot ſupply their want; ſo as to ſpread through the province an opulence like that obſervable in the other provinces of Peru, where, by the circulation of ſilver, there is an univerſal appearance of affluence, gaiety, and ſplendour.

Of the great number of mines within the province of Quito, ſome were formerly worked which at preſent are abandoned. The country then was ſenſible of its advantage; and the remembrance of the general opulence of thoſe times, reſulting from the riches taken out of the mines, ſtill ſubſiſts. Not only the capital, but the towns and villages were then very populous: and many of its inhabitants were famous all over Peru for their prodigious wealth. The rich mines within the juriſdiction of Mecas,

were irrecoverably loſt by a revolt of the Indians; and in proceſs of time the very remembrance of their ſituation was obliterated. The mines of Zaruma have been abandoned, the art of working the ore being loſt, for want of a ſufficient number of people to apply themſelves to it: and the ſame decline is now ſeen all over the province. The fertility, as natural to the climate, ſtill continues in all its plenty: but ſcarce the ſhadow of its former luſtre and magnificence remains; and that enormous wealth, in which it gloried is now no more. For if its products and manufactures bring in conſiderable quantities of ſilver from Lima and Valles, all is expended on European goods; ſo that, as I obſerved, little of that gold and ſilver, ſo common in the more ſouthern provinces, is to be ſeen here.

The only part of the province of Quito, which, under this unhappy change, preſerves its ancient opulence, is the department within the government of Popayan, which throughout abounds in gold mines, and great numbers of them are ſtill worked. To gratify the curious, I ſhall give an account of the principal, and the manner of working the gold ore; as it is different from that uſed in the mines of Caxa; after which, I ſhall mention the other mines known within that province.

Every part of the juriſdiction of Popayan abounds in mines of gold; and though in ſome departments more are worked than in others, yet they all yield gold: and new mines are daily diſcovered and worked; which, under all the inclemencies of the air, in ſome parts fills its towns with inhabitants. Among the departments belonging to the province of Quito, the richeſt in gold are thoſe of Cali, Buga, Almaguar, and Barbacoas, ſome of its mines being always more or leſs worked; and with this ſingular advantage in its gold, of never being mixed with any heterogeneous body; conſequently no mercury is requiſite in extracting it.

The gold mines in theſe parts are not Caxa mines, as thoſe of ſilver and many of gold are; that is, they are not contained and confined as it were betwixt two natural walls: but the gold is found diſperſed and mixed with the earth and gravel; as ſands are found mingled with earths of different ſpecies. Thus the whole difficulty conſiſts in ſeparating the grains of gold from the earth; and this is very eaſily done, though otherwiſe it would be impracticable, by running conduits of water. This method is alſo equally neceſſary in the Caxa mines, where the ſilver and gold are intimately united with other bodies, as, after having gone through the operation of the quickſilver, which their quality renders indiſpenſable, it is waſhed in order to ſeparate the remaining filth. After the laſt operation the amalgama is pure, conſiſting entirely of quickſilver, and gold or ſilver, according to the ſpecies which has been worked.

The manner, throughout the whole juriſdiction of Popayan, for extracting the gold, is, to dig the ore out of the earth, and lay it in a large cocha, or reſervoir made for that purpoſe; and when this is filled, water is conveyed into it through a conduit: they then vigorouſly ſtir the whole, which ſoon turns to a mud, and the lighteſt parts are conveyed away through another conduit, which ſerves as a drain; and this work is continued till only the moſt ponderous parts, as little ſtones, ſand, and the gold, remain at the bottom. The next part of the progreſs is, to go into the cocha with wooden buckets made for this purpoſe, in which they take up the ſediment; then moving them circularly and uniformly, at the ſame time changing the waters, the leſs ponderous parts are ſeparated; and at laſt the gold remains at the bottom of the bucket, clear from all mixture. It is generally found in grains as ſmall as thoſe of ſand; and for that reaſon called oro en polvo; though ſometimes pepitas, or ſeeds, are found among it, of different ſizes, but generally they run ſmall. The water iſſuing from this cocha is ſtopped in another contrived a little beneath it, and there undergoes a like operation; in order

to ſecure any ſmall particles of gold, which, from their extreme ſmallneſs might be carried off by the current of the water being mixed with earth and other ſubſtances: and laſtly, this water is paſſed into a third cocha: but the ſavings here are generally inconſiderable.

This is the method practiſed in all the mines belonging to the juriſdiction of Popayan. The labourers are Negro ſlaves, purchaſed by the owners; and whilſt ſome are employed in waſhing, others bring earth; ſo that the waſhers are kept in continual employment. The fineneſs of this gold is generally of twenty-two carats; ſometimes more, even to twenty-three; ſometimes indeed it is under, though very ſeldom below twenty-one.

In the diſtrict of Choco are many mines of Lavadero, or waſh gold, like thoſe we have juſt deſcribed. There are alſo ſome, where mercury muſt be uſed, the gold being enveloped in other metallic bodies, ſtones, and bitumens. Several of the mines have been abandoned on account of the platina; a ſubſtance of ſuch reſiſtance, that, when ſtruck on an anvil of ſteel, it is not eaſy to be ſeparated: nor is it calcinable; ſo that the metal encloſed within this obdurate body, could not be extracted without infinite labour and charge. In ſome of theſe mines the gold is found mixed with the metal called tumbaga, or copper, and equal to that of the Eaſt; but its moſt remarkable quality is, that it produces no verdigreaſe, nor is corroded by any acids, as common copper is well known to be.

The gold taken out of all theſe lavaderos, or mines, in the province of Quito, is partly circulated in it: but after no long ſtay, like the other gold of theſe countries, goes away to Lima; yet theſe circulations, however temporary, preſerve it from that decay which other parts have felt. A large quantity of this gold is carried to Santa Fé or Carthagena, ſo that Quito ſees very little of it.

In the diſtrict of the town of Zaruma, within the juriſdiction of Loxa, are ſeveral gold mines worked; and though of no great fineneſs, being only betwixt ſixteen and eighteen carats, they are ſo rich, that, when refined to twenty carats, they prove more advantageous to the miners than thoſe where the gold is naturally of that fineneſs, but leſs abundant. Antiently it was uſual to work veins, but the inhabitants are now ſo indolent, that moſt of them are neglected. Theſe ores are worked with quickſilver, and all the mines here are Caxa mines. Of the ſame kind alſo are other gold mines within the juriſdiction of the government of Jaen Bracamoros, which, about eighty or a hundred years ago, yielded great quantities of metal. But the Indians of thoſe parts, encouraged by the ſucceſs of their brethren of Macas, having revolted, the ſituation of them was entirely forgotten; and no care has ſince been taken to ſearch after them. The gold extracted from theſe mines, though not ſo fine as that of Popayan, far exceeded the Zaruma gold. The Indians ſtill extract ſome ſmall quantities, when abſolute neceſſity drives them to this reſource for paying the tribute. In order to this, they go to ſome brook or river, and there wait till it overflows its bank, then waſh the ſands till they have procured a ſufficient quantity to anſwer their preſent neceſſity; then they immediately leave off, not thinking it worth while to fatigue themſelves any longer about it. Several mines diſcovered all over this province, have undergone the ſame fate. One of theſe was in the juriſdiction of the town of Latacunga, near the village of Angamarca; the owner of which was an inhabitant of the village called Sanabria. The quantity of metal he procured from it was ſo great, that in order to loſe no time, he cauſed it to be worked day and night, and had for that purpoſe a great number of Negro ſlaves, who laboured in the night; and the Indians continued the work in the day time. But in the height of his proſperity, the mine in a violent ſtorm gave way,

and

and ſunk ſo low, that though frequent ſearches have been made after it, the vein could not be found. At laſt, in the year 1743, a perſon diſcovered it by an accident of the ſame nature that had deſtroyed it; a violent tempeſt happened, during which, a torrent of water guſhed out through the former entrance of the mine. The perſon, interpreting this accident as a providential indication, immediately undertook the working of it; and it has fully anſwered his expectations.

Within the juriſdiction of this province are many other mines, which appear to have been worked at different times, and to have yielded a great quantity of metal. The nature of the country ſeems beſt adapted to gold mines; though there are ſeveral ſilver veins, which appear to be very rich, and accordingly an account of them is entered in the ſeveral revenue offices, and in the records of the audience of Quito. Some have been lately worked, though with little encouragement; of this number may be ſaid to be that of Guacaya, in the juriſdiction of Zicchos, on the frontiers of Latacunga; and another likewiſe of ſilver, about two leagues from the former. Both were worked ſome time, but never beyond the ſurface of the earth, the undertakers not having a ſufficient ſtock of their own to work them in form; and the aſſiſtance they ſolicited was denied. The moſt celebrated ſilver mine in all this diſtrict, is that called Sarapullo, about eighteen leagues from the ſame town of Zicchos. This alſo was opened, but diſcontinued through the inſtability of the undertaker, and the want of proper aſſiſtance.

In the other juriſdiction, as well as in that of Latacunga, are all the indications of rich mines, though the number of them diſcovered is much leſs. The mountain of Pichincha is, by the inhabitants of Quito, thought to contain immenſe treaſures; and the grains of gold, found in the ſands of the waters which iſſue from it, greatly countenance the opinion; though there is not the leaſt veſtige all over the mountain, that formerly any mine was diſcovered or worked there. But the latter is no great objection: as the diſruptions cauſed by ſtorms, or proceſs of time, are ſuch as ſometimes might entirely choak them up, and cover them ſo as to leave no traces of their exiſtence; and a ſuitable diligence and care have not been uſed for the diſcovery of any. Beſides this mountain, its whole Cordillera, together with the eaſtern chain of Guamani, and many other parts, equally abound with the like appearances of rich mines.

In the diſtricts of Otabalo, and the town of San Miguel de Ibarra, in the territories of the village of Cayambe, along the ſides and eminences of the vaſt mountain Cayamburo, are ſtill remaining ſome monuments in confirmation of the tradition, that, before the conqueſt, mines were worked there, which yielded a vaſt quantity of metal. Among ſeveral mountains near the village of Mira, famed for their antient riches, is one called Pachon, from which an inhabitant of that village is certainly known to have collected, a few years ago, a vaſt fortune. None of theſe are worked: a particular, nothing ſtrange to him who ſees how the mines lately diſcovered are neglected, though their quality is ſufficiently known.

The whole country of Pallactanga, in the juriſdiction of the town of Riobamba, is full of mines of gold and ſilver: and the whole juriſdiction abounds with them to ſuch a degree, that one perſon with whom I was acquainted in that town, and who, by his civilities to us and the French academicians, ſeemed to have a ſoul ſuitable to his opulence, had entered, on his own account, at the mine office of Quito, eighteen veins of gold and ſilver, and all of a good quality. The ore of one of theſe veins, by the miners called Negrillos, being aſſayed at Lima, in 1728, it appeared, from a certificate of Don Juan Antonio de la Mota Torres, that it produced eighty marks of ſilver per cheſt; a very aſtoniſhing circumſtance, the uſual produce in rich mines being only eight or

ten marks per cheſt, each cheſt containing fifty quintals of ore. This is the caſe of Potoſi and Lipes, which, after the expence of carrying the ore to other places, in order to its being refined, and other charges, not only anſwers them all at ten marks per cheſt, but the ſurplus is then very conſiderable. There are likewiſe other mines where, after being refined, a cheſt yields only five or ſix marks of ſilver, and in ſome only three; which yet will bear the expence of refining, being in a cheap country, where great numbers of people are willing to work for low wages. Beſides the riches contained in the mountains belonging to the juriſdiction of Cuenca, though this reſts only on an old Indian tradition, ſeveral mines have lately been diſcovered and worked, but not with the care requiſite to reap all the advantages they offer. One of theſe was in the diſtrict of Alauſi, at about ſix leagues from a plantation called Suſna; the owner of which, during the intervals of rural labour, uſed to employ his Indians and Negroes in taking out the ore, which he found to be very rich; but for want of a ſufficient fund to proſecute this work, and at the ſame time not neglect his plantation, he never was able to get from the mine that immenſe quantity of ſilver which its richneſs ſeemed to promiſe, if worked in form. All that country is indeed ſo full of mines, that with an induſtrious turn in the minds of the inhabitants, they would be found in number and richneſs to equal thoſe which have proved the ſources of ſuch infinite wealth to the ſouthern provinces of Peru; but it is far otherwiſe. This ſupineneſs is thought to be owing to the great plenty; and conſequently a low rate of all kinds of proviſions: for the inhabitants, having all they deſire for little or nothing, cannot be prevailed on to ſlave in digging the earth for gold; whence the inhabitants of the cities and towns are hindered from acquiring large fortunes, and conſequently encreaſing them by undertaking to work more mines. Add to this the prejudice, or rather apprehenſion of the difficulties; which are thought ſo great, that when a perſon expreſſes his intention of working in ſome mine, others look upon him as a man running headlong to his deſtruction, and who riſks certain ruin for remote and uncertain hopes. They endeavour therefore to divert him from his purpoſe; and if they cannot ſucceed in this, they fly from him as if they were afraid leſt he ſhould communicate the infection to them. It is not therefore ſtrange that theſe mines, ſo rich in all appearance, ſhould be neglected, and no perſon found deſirous of reaping the great advantages which would doubtleſs reſult from working them. This occupation, for want of being ſufficiently acquainted with it, is univerſally dreaded: whereas in the ſouthern provinces of Quito it is quite otherwiſe; the celebrated miners being men of great power, vaſt fortunes, and the moſt eminent families in the country. Beſides which, are great numbers of other miners of more limited circumſtances, all eagerly embracing any opportunity of employing their ſubſtance in undertaking mines.

The governments of Quijos and Majos are no leſs abundant in mines than the juriſdictions of Quito; thoſe in Jaen are of infinite richneſs; and thoſe of Maynas and Atacames not inferior to them. With regard to the firſt, it is very well known, that the Indians on the banks of the Maranon, by waſhing the ſands of ſome of the rivers running into it, procure what gold they want, though their deſires in this point are as moderate as the avidity of other nations are inſatiable. This gold is an evident ſign that the adjacent country abounds in mines. As to the ſecond, experience has ſhewn that the borders of the rivers of Santiago and Mira are full of veins of gold, the Mulattos and Meſtizos ſupplying themſelves with that metal by waſhing the ſands. But neither of them have applied themſelves to diſcover the original veins. Beſides gold and ſilver mines, the province of Quito has alſo thoſe of other metals, and quarries of fine ſtone: but theſe are utterly diſregarded by the inhabitants. Yet this province

could

could not attain the complete poſſeſſion of its riches, if to the mines of gold and ſilver, nature had not added thoſe materials which are neceſſary in extracting the treaſures they contain, and in the other ſervices of life: nor could this country be properly ſaid to be rich in mines, if it afforded only thoſe of gold and ſilver; but nature, that there might be no deficiency in her gift, hath alſo furniſhed it with mines of azogue or quick-ſilver, which are found in the ſouthern extremity of the province, near a village of the ſame name belonging to the juriſdiction of Cuenca. Formerly the quickſilver for the gold and ſilver mines was furniſhed from hence; but this has been ſuppreſſed; ſo that at preſent only thoſe of Guancà Velica are allowed to be worked: by which means a ſtop has been put to thoſe frauds diſcovered in the payments of the fifths; the miners, inſtead of applying to the mine-offices within their department, or the principal ſtaple, ſupplying themſelves with contraband mercury. And the end has been fully anſwered with regard to the revenue; frauds being now much more difficult, and conſequently leſs frequent, ſince the quickſilver can be had only from one mine, than when ſeveral were open. But at the ſame time it is certain, that this prohibition was the principal cauſe of the decay of the ſilver mines in the province of Quito: and had the caſe been duly examined, many other remedies might have been found to prevent theſe clandeſtine practices, beſides an abſolute obſtruction to ſo great a part of the riches of that country.

It is the opinion of ſome naturaliſts, and the marks of it are indeed very evident, that the ground on which the city of Cuenca ſtands, is entirely an iron mine, its veins ſhewing themſelves in the chaſms of ſome breaches; and the pieces taken out of the ſloughs prove it beyond diſpute, not only by their colour and weight, but by being attracted by the magnet, when reduced to ſmall pieces; and many intelligent perſons in theſe ſpecies of mines affirm, that it not only is an iron-mine, but alſo of extreme richneſs; though this has not been aſcertained by experiment.

It is alſo equally unqueſtionable, that, were it poſſible to turn the induſtry of the inhabitants into this channel, mines of copper, tin, and lead, might alſo be diſcovered, though no ſuch thing is at preſent known. But it is natural to ſuppoſe, that, where there are ſo many mines of the moſt precious metals, thoſe of copper and lead are not wanting. In the next chapter, I ſhall give ſome account of other mines; together with the quarries of curious ſtone, and ſeveral ancient monuments of antiquity, that nothing may be wanting towards the complete knowledge of this province, from which Spain derives ſuch great advantages.

CHAP. XI. — *Monuments of the ancient Indians, in the Juriſdiction of Quito. — Account of the ſeveral Gems and Quarries found near that City.*

THE ancient inhabitants of Peru were far enough from carrying the ſciences to any perfection, before the conqueſt of the country by the Spaniards. They were not deſtitute of all knowledge of them; but it was ſo faint and languid, that it was far from being ſufficient for cultivating their minds. They had alſo ſome glimmerings of the mechanic arts; but their ſimplicity, or want of taſte, was ſo remarkable, that, unleſs forced by abſolute neceſſity, they never departed from the models before them. The progreſs and improvements they made were owing to induſtry, the common directreſs of mankind. A cloſe application ſupplied the want of ſcience. Hence, after a long ſeries of time, and exceſſive labour, they raiſed works, not ſo totally void of art and beauty, but that ſome particulars raiſe the admiration of an attentive ſpectator. Such for inſtance, were ſome of thoſe ſtructures, of which we have ſtill ſuperb ruins, in which,

which, conſidering the magnitude of the works, and the few tools they were maſters of, their contrivance and ingenuity are really admirable. And the work itſelf, though deſtitute of European ſymmetry, elegance, and diſpoſition, is ſurpriſing, even in the very performance of it.

Theſe Indians raiſed works both for the convenience and veneration of poſterity. With theſe the plains, eminences, or leſſer mountains, are covered; like the Egyptians, they had an extreme paſſion for rendering their burial-places remarkable. If the latter erected aſtoniſhing pyramids, in the centre of which their embalmed bodies were depoſited; the Indians, having laid a body without burial in the place it was to reſt in, environed it with ſtones and bricks as a tomb; and the dependents, relations, and intimate acquaintance of the deceaſed, threw ſo much earth on it as to form a tumulus or eminence which they called Guaca. The figure of theſe is not preciſely pyramidical; the Indians ſeeming rather to have affected the imitation of nature in mountains and eminences. Their uſual height is about eight or ten toiſes, and their length betwixt twenty and twenty-five, and the breadth ſomething leſs; though there are others much larger. I have already obſerved, that theſe monuments are very common all over this country; but they are moſt numerous within the juriſdiction of the town of Cayambe, its plains being, as it were, covered with them. The reaſon of this is, that formerly here was one of their principal temples, which they imagined muſt communicate a ſacred quality to all the circumjacent country, and thence it was choſen for the burial-place of the kings and caciques of Quito; and, in imitation of them, the caciques of all theſe villages were alſo interred there.

The remarkable difference in the magnitude of theſe monuments ſeems to indicate, that the guacas were always ſuitable to the character, dignity, or riches of the perſon interred; as indeed the great number of vaſſals under ſome of the moſt potent caciques, concurring to raiſe a guaca over his body, it muſt certainly be conſiderably larger than that of a private Indian, whoſe guaca was raiſed only by his family and a few acquaintance: with them alſo were buried their furniture, and many of their inſtruments, both of gold, copper, ſtone, and earth: and theſe now are the objects of the curioſity or avarice of the Spaniards inhabiting the country; that many of them make it a great part of their buſineſs to break up thoſe guacas, in expectation of finding ſomething valuable: and, miſled by finding ſome pieces of gold here and there, they ſo devote themſelves to this ſearch, as to ſpend in it both their ſubſtance and time: though it muſt be owned, that many, after a long perſeverance under diſappointments, have at length met with rich returns for all their labour and expence. Two inſtances of this kind happened while we were in the country; the firſt guaca had been opened near the village of Cayambe, in the plain of Peſillo, a little before our arrival at Quito; and out of it were taken a conſiderable quantity of gold utenſils; ſome of which we ſaw in the revenue-office, having been brought there as equivalents for the fifths. The ſecond was more recently diſcovered in the juriſdiction of Paſtos, by a Dominican friar, who, from a turn of genius for antiquities, had laid out very large ſums in this amuſement; and at laſt met with a guaca in which he is ſaid to have found great riches. This is certain, that he ſent ſome valuable pieces to the provincial of his order, and other perſons at Quito. The contents of moſt of them conſiſt only of the ſkeleton of the perſon interred; the earthen veſſels in which he uſed to drink chica, now called Guaqueros; ſome copper axes, looking-glaſſes of the ynca-ſtone, and things of that kind, being of little or no value, except for their great antiquity, and their being the works of a rude illiterate people.

The

The manner of opening the guacas is, to cut the lower part at right angles, the vertical and horizontal line meeting in the centre, where the corpſe and its furniture are found.

The ſtone mirrors taken out of the guacas are of two ſorts; one of the ynca-ſtone, and the other of the gallinazo-ſtone: the former is not tranſparent, of a lead colour, but ſoft; they are generally of a circular form, and one of the ſurfaces flat, with all the ſmoothneſs of a cryſtal looking-glaſs; the other oval and ſomething ſpherical, and the poliſh not ſo fine. They are of various ſizes, but generally of three or four inches diameter, though I ſaw one of a foot and a half; its principal ſurface was concave, and greatly enlarged objects; nor could its poliſh be exceeded by the beſt workmen among us. The great fault of this ſtone is, its having ſeveral veins and flaws, which, beſides the diſadvantage to the ſurface of the mirror, render it liable to be broken by any little accident. Many are inclined to think that it is not natural, but artificial. There are, it muſt indeed be owned, ſome appearances of this, but not ſufficient for conviction. Among the breaches in this country, ſome quarries of them are found; and quantities continue to be taken out, though no longer worked for the uſe the Indians made of them. This does not, however, abſolutely contradict the fuſion of them, in order to heighten their quality, or caſt them into a regular form.

The gallinazo-ſtone is extremely hard, but as brittle as flint: it is ſo called from its black colour, in alluſion to the colour of the bird of that name, and is in ſome meaſure diaphanous. This the Indians worked equally on both ſides, and reduced it into a circular figure. On the upper part they drilled a hole for a ſtring to hang it by; the ſurfaces were as ſmooth as thoſe of the former, and very exactly reflect objects. The mirrors made of this ſtone were of different kinds, ſome plain, ſome concave, and others convex. I have ſeen them of all kinds: and, from the delicacy of the workmanſhip, one would have thought theſe people had been furniſhed with all kinds of inſtruments, and completely ſkilled in optics. Some quarries of this ſtone are likewiſe met with; but they are entirely neglected, though its tranſparency, colour, and hardneſs, beſides its having no flaws or veins, render it very beautiful.

The copper axes of the Indians differ very little in their ſhape from ours: and it appears that theſe were the inſtruments with which they performed moſt of their works: for if not the only, they are the moſt common edge-tools found among them; and the whole apparent difference betwixt thoſe they uſe, conſiſts only in ſize and ſhape: for though they all reſemble an axe, the edge in ſome is more circular than in others. Some have a concave edge, others a point on the oppoſite ſide, and a fluted handle. Theſe inſtruments were not all of copper, ſome having been found of gallinazo, and of another ſtone ſomething reſembling the flint, but leſs hard and pure. Of this ſtone, and that of the gallinazo, are ſeveral points, ſuppoſed to have been heads of ſpears, as theſe were their two chief inſtruments or weapons: for, had they uſed any other, ſome would doubtleſs have been found among the infinite number of guacas which have been opened.

The guaqueros, or drinking-veſſels, are of a very fine black earth: but the place where they were made is utterly unknown. They are round, and with a handle in the middle, the mouth on one ſide, and on the other the head of an Indian, whoſe features are ſo naturally expreſſed, that very few of our workmen could equal it. Others, though of the ſame form, are of a red earth. Beſides which, there are found larger and ſmaller veſſels of both kinds of earth uſed in making and keeping the chicha.

Among the gold pieces are the noſe-jewels, which in form reſemble the foot of a chalice, and very little leſs: theſe were appended to the ſeptum, which divides the two

noſtrils. There are alſo found collars, bracelets, and ear-pendants, reſembling the noſe-jewels: but all theſe are no thicker than paper: the idols, which are at full length, are every where hollow within; and as they are all of one piece, without any mark of ſoldering, the method they uſed in making them is not eaſily conceived. If it be ſaid that they were caſt, ſtill the difficulty remains how the mould could be of ſuch a fragility as to be taken away without damaging works, which, in all their parts, are ſo extremely thin.

The maize has ever been the delight of the Indians; for, beſides being their food, their favourite liquor chicha was made of it; the Indian artiſts therefore uſed to ſhew their ſkill in making ears of it in a kind of very hard ſtone; and ſo perfect was the reſemblance, that they could hardly be diſtinguiſhed by the eye from nature; eſpecially as the colour was imitated to the greateſt perfection; ſome repreſented the yellow maize, ſome the white; and in others, the grains ſeemed as if ſmoke-dried by the length of time they had been kept in their houſes. The moſt ſurpriſing circumſtance of the whole is, the manner of their working, which, when we conſider their want of inſtruments, and wretched form of thoſe they had, appears an inexplicable myſtery: for either they worked with copper tools, a mettle little able to reſiſt the hardneſs of ſtones; or, to give the nice poliſh conſpicuous on their works, other ſtones muſt have been uſed for tools. But the labour, time, and patience, requiſite to make only a hole in the gallinazos, as was made in the mirrours; and much more to give their ſurfaces ſuch a ſmoothneſs and poliſh, that they are not to be diſtinguiſhed from the fineſt glaſs, muſt have been prodigious. Theſe are works which the moſt ingenious of our artiſts would be extremely at a loſs to produce, if they were allowed only pieces of copper and ſtones, without any other tools or materials. It is the greateſt proof of the ingenuity of theſe people, that by mere dint of genius, and unaſſiſted by information, they ſhould attain to ſuch contrivances and ſuch a delicacy of workmanſhip.

Yet all that we have ſaid is ſurpaſſed by the ingenuity of the Indians in working emeralds, with which they were ſupplied from the coaſt of Manta, and the countries dependent on the government of Atacames, Coaquis or Quaques. But theſe mines are now entirely loſt, very probably through negligence. Theſe curious emeralds are found in the tombs of the Indians of Manta and Acatames: and are, in beauty, ſize, and hardneſs, ſuperior to thoſe found in the juriſdiction of Santa Fé; but what chiefly raiſes the admiration of the connoiſſeur is, to find them worked, ſome in ſpherical, ſome cylindrical, ſome conical, and of various other figures; and all with a perfect accuracy. But the unſurmountable difficulty here is, to explain how they could work a ſtone of ſuch hardneſs; it being evident, that ſteel and iron were utterly unknown to them. They pierced emeralds, and other gems, with all the delicacy of the preſent times, furniſhed with ſo many tools: and the direction of the hole is alſo very obſervable; in ſome it paſſes through the diameter; in others, only to the centre of the ſtone, and coming out at its circumference they formed triangles at a ſmall diſtance from one another: and thus the figure of the ſtone, to give it relief, was varied with the direction of the holes.

After this account of the guacas of theſe idolatrous nations, the cuſtom which equally prevailed among the ſouthern nations of Peru, I proceed to their ſuperb edifices, whether temples, palaces, or fortreſſes: and though thoſe in the kingdom of Quito are not the moſt ſtately and magnificent, the court and reſidence of the yncas having been in the province of Cuſco; yet ſome of the former ſufficiently denote the grandeur of the Indians who then inhabited it, and their fondneſs for ſuch edifices; intending as it

were to hide the ruſticity of their architecture under richneſs and magnificence which they profuſely beſtowed on their edifices, whether of brick or ſtone.

The greateſt part of one of theſe works is ſtill exiſting, near the town of Cayambe, being a temple built of unbaked bricks. It ſtands on an eminence of ſome height; its figure is perfectly circular, and its diameter eight toiſes. Of this ſtructure nothing now remains but the walls, which are in good condition; and about two toiſes and a half in height, and four or five feet in thickneſs. The cement of the bricks is of the ſame earth with that of which they are made: and the hardneſs of them may be conceived, from remaining ſo long in a good condition expoſed to the injuries of weather, having no cover.

Beſides the ancient tradition that this ſtructure was one of the temples of thoſe times, the manner of its conſtruction countenances ſuch a conjecture: for its circular form, without any ſeparation in the inſide, ſhews it to have been a place of public reſort, and not any habitation. The ſmallneſs of the door renders it probable, that, though the yncas entered into their palaces in the chairs in which they were carried, as will be ſeen hereafter, this place they entered on foot, in token of veneration; the dimenſions of the door not admitting of any other manner. And, as I have before obſerved, that one of the principal temples was not far from hence, this was probably the very ſtructure.

At the extremity of the plain which runs northward from Latacunga, are ſtill ſeen the walls of a palace of the yncas of Quito; and is ſtill called by its ancient name Callo. At preſent it ſerves for the manſion-houſe of a plantation belonging to the Auguſtines at Quito. If it wants the beauty and grandeur which characteriſe the works of the ancient Egyptians, Greeks, Romans, and other nations verſed in the fine arts; yet, if we make proper allowance for the ruſticity of the Indians, and compare this with their other buildings, the dignity of the prince will be abundantly conſpicuous, in the prodigious magnitude of the materials, and the magnificence of the ſtructure. You enter it through a paſſage five or ſix toiſes in length, leading into a court, round which are three ſpacious ſaloons, filling the three other ſides of its ſquares. Each of theſe ſaloons has ſeveral compartments; and behind that which faces the entrance, are ſeveral ſmall buildings, which ſeem to have been offices, except one; and this, from the many diviſions in it, was, in all probability, a menagerie. Though the principal parts ſtill continue, the ancient work is ſomething disfigured, dwellings having been lately built among them, and alterations made in the chief apartments.

This palace is entirely of ſtone, equal in hardneſs to flint; and the colour almoſt black. They are exceedingly well cut, and joined ſo curiouſly, that the point of a knife, or even ſo much as a piece of the fineſt paper cannot be put betwixt them; ſo that they only ſhew the walls to be of different ſtones, and not one entire compoſition, but no cement is perceivable. The ſtones without are all of a convex figure, but at the entrance of the door are plane. But there is a viſible inequality, both in the ſtones and in their courſes, which gives a more ſingular air to the work; for a ſmall ſtone is immediately followed by one large and ill-ſquared, and that above is made to fit the inequalities of the other two, and at the ſame time fill up all the interſtices between the projections and irregularity of their faces; and this in ſuch perfection, that, whatſoever way they are viewed, all parts appear joined with the ſame exactneſs. The height of theſe walls is about two toiſes and a half, and about three or four feet in thickneſs. The doors are about two toiſes high, and their breadth at the bottom about three or four feet, but run narrowing upwards, where the aperture is only two feet and a half. The doors of the palaces, where the yncas reſided, were made of ſuch a height, to

allow room for the chairs in which the monarch was carried on men's ſhoulders into his apartment, the only place in which his feet touched the ground. It is not known whether this or the other palaces of the yncas had any ſtories, nor how they were roofed: for thoſe we examined were either open, or had been roofed by the Spaniards: but it is highly probable that they covered them with boards, in the form of a terrace, that is, ſupported by beams laid acroſs: for in the walls there is nothing near the ground that affords room for a conjecture, that they ever ſupported any roofs: on this horizontal roof they contrived ſome ſlope for carrying off the waters. The reaſon of contracting their doors at the top was, that the lintel might be of one ſtone; for they had no idea either of arches or of key-ſtones, as may be concluded from no ſuch works occurring among all their edifices.

About fifty toiſes north of this palace, fronting its entrance, is a mountain, the more ſingular as being in the midſt of a plain: its height is betwixt twenty-five and thirty toiſes, and ſo exactly, on every ſide, formed with the conical roundneſs of a ſugar-loaf, that it ſeems to owe its form to induſtry; eſpecially as the end of its ſlope on all ſides forms exactly with the ground the ſame angle in every part. And what ſeems to confirm this opinion is, that guacas, or mauſoleums, of prodigious magnitude, were greatly affected by the Indians in thoſe times. Hence the common opinion, that it is artificial, and that the earth was taken out of the breach north of it, where a little river runs, does not ſeem improbable. But this is no more than conjecture, not being founded on any evident proof. In all appearance this eminence, now called Panecillo de Callo, ſerved as a watch tower, commanding an uninterrupted view of the country, in order to provide for the ſafety of the prince on any ſudden alarm of an invaſion, of which they were under continual apprehenſions, as will appear from the account of their fortreſſes.

About two leagues north-eaſt of the town of Atun-Canar, or great Canar, is a fortreſs or palace of the yncas. It is the moſt entire, the largeſt, and beſt built in all the kingdom. Cloſe by its entrance runs a little river, and the back part of it terminates in a high and thick wall at the ſlope of a mountain. In the middle of it is a kind of oval tower, about two toiſes high from the ground within the fort, but without it riſes ſix or eight above that of the hill. In the middle of the tower is a ſquare of four walls; which, on the ſide facing the country, leave no paſſage; and all its angles touch the circumference of the oval. On the oppoſite ſide only, is a very narrow paſs, anſwering to the inward part of the tower. In the middle of this ſquare is an apartment of two ſmall rooms, without any communication, and the doors of them oppoſite to the ſpace which ſeparates them. In the ſides towards the country are loop-holes; and in critical times it was made a court of guard. From the outſide of this oval tower, a wall is extended on the left ſide about forty toiſes, and about twenty-five on the right; this wall was continued in a great number of irregular angles, and encloſed a large ſpot of ground. It had only one entrance, which was in the ſide oppoſite to the tower, and facing the laſt angle on the right near the rivulet. From this gate or entrance was a paſſage, juſt broad enough for two perſons to walk abreaſt, and at the wall turned ſhort off towards the tower, but always of the ſame breadth. After this it winded towards the breach, and widened ſo as to form a parade before the tower. In theſe paſſages, at the diſtance of every two or three paces, one ſees niches formed within the wall, like ſentry-boxes; and on the other ſide two doors, which were entrances to the ſame number of ſoldiers de logis, and ſeem to have ſerved the corps of the garriſon for barracks. In the inner ſquare, to the left of the tower, were ſeveral apartments, of which the height, diſpoſition, and doors, are a ſufficient proof

that

I was at that village, ſaw ſome of theſe ſparks in their natural ſtate; and both their colour and hardneſs ſufficiently ſhewed that they were of a very fine ſort.

Another kind of ſtone is found in great plenty all over this country. It is of a fine green, and harder than alabaſter, though not pellucid: but no more valued than any of the former; except that a few toys or utenſils are made of it.

Here are alſo ſome mines of ſulphur, and ſome parts afford vitriol; but no farther known than as Nature has placed them in view; not only the improvement of them being entirely neglected, but ſcarcely any notice taken of thoſe which lie on the ſurface of the ground; either becauſe the inhabitants ſtand in no need of thoſe minerals, or from their ſtrong averſion to any thing that requires labour.

North of Quito, betwixt two plantations, at the foot of mount Anlagua, one of which bears the ſame name, and the other that of Courogal, runs a very large river, which petrifies any wood, leaves, &c. thrown into it. I have had whole branches thus petrified; and the poroſity of the ſtem, the fibres of the rind, even the ſmalleſt veins of the leaves, and the meander of its fibril, equally diſcernable as when freſh cut from the tree. I have alſo had large pieces of timber petrified, which at firſt ſight appeared to be wood thoroughly dried; no viſible alteration having been made in them, except in colour.

With all theſe appearances, I cannot think that the wood, leaves, and the like, which are put into the river, are really turned into ſtone of ſuch a hardneſs as that I experienced: but as the appearance is undeniable, I ſhall offer an explanation of this ſuppoſed tranſmutation.

It muſt be obſerved, that the rocks and all the parts which this river waſhes, are covered with a cruſt of hardneſs little inferior to that of the main rock; and this increaſes its volume, and diſtinguiſhes itſelf from the original rock, which is ſomething yellowiſh. The inference I would draw from hence is, that the water of the river is mixed with petrifying, viſcid, and glutinous particles, which adhere to the body they ſurround: and as by their extreme ſubtility they inſinuate themſelves through its pores, they fill the place of the fibres, which the water inſenſibly rots off and ſeparates, till at length all that was leaf or wood gives way to that petrifying matter; which ſtill retains the impreſſion of the parts of the original, with its ſeveral veins, fibres, and ramifications. For at the time of its inſinuation, the ducts of the wood, or leaves, ſerve for a kind of mould, by which it naturally takes the entire figure of the body into which it has obtruded itſelf.

An obſervation I made with ſome branches confirms me in this opinion: for, having opened them, I found ſome leaves and bits of wood, which ſnapped on breaking; and the inſide was as large as real ſtone, the texture only remaining of its firſt ſubſtance. But in others, the parts conſolidated by the ſtony matter ſnapped; and the fibres, not having yet undergone a total corruption, retained the appearance of wood, though ſome were more rotten and decayed than others. I had alſo ſome leaves, the ſurface of which was only covered with a very fine lapideous tegument, but within were entire leaves, except here and there a little mark of decay.

It is to be obſerved, that this matter much more eaſily faſtens on any corruptible ſubſtance, than on the more compact and ſolid, as ſtones, and the like: the reaſon of which is, that in one it meets with pores, in which it fixes itſelf; but having no ſuch hold on the harder bodies, it is ſoon waſhed off by the agitation of the water; that if now and then ſuch cruſts are ſeen on ſtones, they never make any ſenſible addition to their volume, though ſome excrement is now conſpicuous from the difference of the colour; that of the petrified leaves, both within and without, is of a pale yellow; and the

the ſame prevails in the ſtems: though in theſe always with a mixture of that of the wood itſelf when dry.

Though all the juriſdictions of the kingdom of Quito, from north to ſouth, are not moleſted by the vicinity of wild Indians, yet it is the misfortune of the governments of Quixos and Macas, Jean and Maynas, to be ſurrounded and intermixed with thoſe barbarians; ſo that, by only paſſing the eaſtern Cordillera of the Andes, towards that part you uſually meet with them: and from ſome parts of thoſe eminences the ſmoke of their cottages may be ſeen. This ſight is moſt frequently beheld from the mountain on the back of the town of Cayambe; and all along to the northward, from the village of Mira, within the juriſdiction of the town of San Miguel di Ibarra. The ſportſmen, when hunting on thoſe hills, often ſee the ſmoke both on this ſide and likewiſe on the ſame Cordillera, from the juriſdiction of Riobamba, to that of Cuenca. The village of Mira has often been ſurpriſed with the ſudden appearance of ſome of theſe Indians; but they have as ſuddenly turned back, and with the ſame haſte they came. It is not uncommon for Indians of theſe juriſdictions, from a fondneſs for ſloth and licentiouſneſs, to leave their houſes and go over to the ſavages; as among them they may, without controul, follow their natural idolatry, and give themſelves up to drunkenneſs and all manner of vice; and, what they think a ſupreme happineſs, be ſerved and attended by women, whoſe office it is to take care of and ſupport them: all their occupation being hunting, whenever compelled by neceſſity, or induced by a ſudden fit of induſtry. Thus they live in a debaſement of human nature; without laws or religion; in the moſt infamous brutality; ſtrangers to moderation; and without the leaſt controul or reſtraint on their exceſſes.

PART II.

ACCOUNT OF PERU AND CHILI.

BOOK VII.

Account of our Journey to Lima; with a Deſcription of the Towns and Settlements on the Road, and of the City of Lima.

CHAP. I. — *Journey from Quito to Truxillo.*

THE accidents to which human enterprizes and attempts are generally expoſed, direct, with an inconſtant but wonderful harmony, the ſeries of our actions and adventures, and introduce among them a great variety of alterations and changes. It is this variety which, in vegetation, embelliſhes nature, and equally diſplays the glory and wiſdom of the Supreme Creator in the political and rational world; where we admire the ſurpriſing diverſity of events, the infinity of human actions, and the different ſchemes and conſequences in politics, the ſucceſſive chain of which renders hiſtory ſo delightful, and,

and, to a reflecting mind, ſo inſtructive. The inconſtancy ſo often ſeen in things the moſt ſolid and ſtable, is generally one of the moſt powerful obſtacles to the advantages which might otherwiſe be derived from works of any duration. However great they are, either in reality, or idea, the perfection of them is not only impeded by the viciſſitudes of time, and the inconſtancy of things, but they even decline, and fall into ruins: ſome, through want of proper ſupport and encouragement; while others, from the mind being wearied out by delays, difficulties, and a thouſand embarraſſments, are abandoned; the imagination being no longer able to purſue its magnificent ſcheme.

To meaſure ſome degrees of the meridian near the equator, the principal intention of our voyage, if conſidered only in idea, and abſtractedly from the difficulties which attended its execution, muſt appear eaſy, and as requiring no great length of time; but experience convinced us, that a work of ſuch importance to the improvement of ſcience, and the intereſt of all nations, was not to be performed without delays, difficulties, and dangers, which demanded attention, accuracy, and perſeverance. Beſides the difficulties neceſſarily attending the requiſite accuracy of theſe obſervations, the delays we were obliged to make in order to take them in the moſt favourable ſeaſons, the intervening clouds, the Paramos, and diſpoſition of the ground, were ſo many obſtacles to our making any tolerable diſpatch; and theſe delays filled us with apprehenſions, that if any other accidents ſhould happen, the whole deſign would be rendered abortive, or at leaſt, ſuffer a long interruption.

It has already been obſerved, that while we were at Cuenca, finiſhing our aſtronomical obſervations in that extremity of the arch of the meridian, we unexpectedly received a letter from the Marquis de Villa Garcia, viceroy of Peru, deſiring us to come with all ſpeed to his capital: any delay on our part might have been improper; and we were ſolicitous not to merit an accuſation of the leaſt remiſsneſs in His Majeſty's ſervice. Thus we were under a neceſſity of ſuſpending our obſervations for ſome time *; though all that remained was the ſecond aſtronomical obſervation, northward, where the ſeries of our triángles terminated.

The occaſion of this delay aroſe from an account, received by the viceroy, that war being declared between Spain and England, the latter was ſending a conſiderable fleet on ſome ſecret deſigns into thoſe ſeas. Several precautions had been taken to defeat any attempt; and the viceroy, being pleaſed to conceive that we might be of ſome uſe to him in acquitting himſelf with honour on this occaſion, committed to us the execution of ſome of his meaſures; giving us to underſtand, that the choice he made of us, was the moſt convincing proof of the high opinion he entertained of our abilities; and indeed our obligations were the greater, as the diſtance of four hundred leagues had not obliterated us from his remembrance, of which he now gave us ſo honourable a proof.

On the 24th of September 1740, the viceroy's letter was delivered to us, and we immediately repaired to Quito, in order to furniſh ourſelves with neceſſaries for the journey.

Every thing being performed, we ſet out from that city on the 30th of October, and determined to go by Guaranda and Guayaquil; for, though there is a road by land through Cuenca and Loja, yet the other ſeemed to us the moſt expeditious, as the ways are neither ſo bad, nor mules and other beaſts of carriage ſo difficult to be met with. The long ſtays in villages were here alſo little to be apprehended, which are frequently rendered neceſſary in the other road by inundations, rivers, and precipices.

* Book V. Chap. II.

On the 30th of October we reached the Bodegas, or warehouſes, of Babayoho, where, taking a canoe, we went down the river to Gayaquil; and embarking on board a ſmall ſhip bound for Puna, we anchored in that port November the 3d. At this place we hired a large balza, which brought us through the gulph to Machala. For though the uſual route is by the Salto de Tumbez, we were obliged to alter our courſe, the pilot not being well acquainted with the entrance of a creek, through which you paſs to the Salta.

On the 5th, in the morning, our balza landed us on the coaſt of Machala, from whence we travelled by land to the town, the diſtance being about two ſhort leagues. The next day we ſent away our baggage in a large canoe to the Salto de Tumbez; going myſelf in the ſame canoe, being diſabled by a fall the preceding day. Don George Juan, with the ſervants, followed on horſeback: the whole country being level, is every where full of ſalt marſhes, and overflows at high-water, ſo that the track is not ſufficient for two to go abreaſt.

The Salto, where I arrived on the 7th at night, is a place which ſerves as a kind of harbour for boats and ſmall veſſels. It is ſituated at the head of ſome creeks, particularly that of the Jambeli, between fourteen and ſixteen leagues from the coaſt, but entirely deſtitute of inhabitants, no freſh water being found in any part of the adjacent country; ſo that it only ſerves for landing goods conſigned to Tumbez, where they are carried on mules, kept there for this purpoſe; and in this its whole trade conſiſts. The Salto is uninhabited; nor does it afford the leaſt ſhelter, all the goods brought thither being depoſited in a ſmall ſquare; and, as rain is ſeldom or ever known here, there is little danger of their receiving any damage before they are carried to Tumbez.

Here, as along the ſides of all the creeks, the mangrove-trees ſtand very thick, with their roots and branches ſo interwoven as to be abſolutely impenetrable; though the ſwarms of muſchitos are alone ſufficient to diſcourage any one from going among them. The only defence againſt theſe inſects is, to pitch a tent, till the beaſts are loaded, and you again move forward. The more inland parts, where the tides do not reach, are covered with foreſts of ſmaller trees, and contain great quantities of deer; but, at the ſame time, are infeſted with tigers; ſo that, if the continual ſtinging of the muſchitos deprives travellers of their reſt, it alſo prevents their being ſurpriſed by the tigers, of the fury of which there are many melancholy examples.

On the 9th, in the morning, I arrived at the town of Tumbez, ſituated ſeven leagues from the Salto; the whole country through which the road lies is entirely waſte, part of it being overflowed by the tides, and the other part dead ſands, which reflect the rays of the ſun ſo intenſely, as to render it neceſſary, in general, to perform this journey in the night; for travelling ſeven leagues thither, and as many back, without either water or fodder, is much too laborious for the mules to undergo in the day-time. A drove of mules, therefore, never ſets out from Tumbez for the Salto, till an account arrives, generally by one of the ſailors belonging to the veſſel, of the goods being landed, and every thing in readineſs; as it would otherwiſe be loſt labour, it being impoſſible that the mules ſhould make any ſtay there.

Don George Juan had reached Tumbez on the 8th, and, though he did every thing in his power to provide mules for continuing our journey, we were obliged to wait there ſome time longer. Nor could we make any advantage of our ſtay here, except to obſerve the latitude, which we did on the ninth with a quadrant, and found it to be 3° 13′ 16″ ſouth.

Near Tumbez is a river of the ſame name, which diſcharges itſelf into the bay of Guayaquil, almoſt oppoſite to the iſland of St. Clare. Barks, boats, balzas, and canoes, may

may go up and down this river, being three fathoms deep and twenty-five broad; but it is dangerous going up it in the winter ſeaſon, the impetuoſity of its current being then increaſed by torrents from the mountains. At a little diſtance from the Cordillera, on one ſide of the banks of the river, ſtands the town of Tumbez in a very ſandy plain, interſperſed with ſome ſmall eminences. The town conſiſts only of ſeventy houſes, built of cane, and thatched, ſcattered up and down without any order or ſymmetry. In theſe houſes are about one hundred and fifty families of Meſtizos, Indians, Mulattoes, and a few Spaniards. There are beſides theſe other families living along the banks of the river, who having the conveniency of watering their grounds, continually employ themſelves in rural occupations.

The heat is exceſſive; nor have they here any rain for ſeveral years ſucceſſively; but when it begins to fall, it continues during the winter. The whole country from the town of Tumbez to Lima, contained between the foot of the Cordillera and the ſea, is known by the name of Valles, which we mention here, as it will often occur in the remaining parts of this narrative.

Tumbez was the place where, in the year 1526, the Spaniards firſt landed in theſe parts of South America, under the command of Don Franciſco Pizarro; and where he entered into ſeveral friendly conferences with the princes of the country, but vaſſals to the Yncas. If the Indians were ſurprized at the ſight of the Spaniards, the latter were equally ſo at the prodigious riches which they every where ſaw, and the largeneſs of the palaces, caſtles, and temples; of all of which, though built of ſtone, no veſtiges are now remaining.

Along the delightful banks of this river, as far as the water is conveyed, maize, and all other fruits and vegetables that are natives of a hot climate, are produced in the greateſt plenty; and in the more diſtant parts, which are deſtitute of this advantage grows a kind of leguminous tree, called algarrobale, producing a bean, which ſerves as food for all kinds of cattle. It reſembles almoſt that known in Spain by the name of Valencia; its pod being about five or ſix inches long, and only four lines broad, of a whitiſh colour, intermixed with veins of a faint yellow. It proves a very ſtrengthening food to beaſts of labour, and is uſed in fattening thoſe for the ſlaughter, which hence acquire a taſte remarkably delicious.

On the 14th I arrived at the town of Piura, where I was obliged to wait ſome time for Don George Juan, during which I entirely recovered from the indiſpoſition I before laboured under from my fall.

Here I experienced the efficacy of the Calaguala, which I happily found not to fall ſhort of the great reputation it has acquired in ſeveral parts of Europe.

From the town of Tumbez to the city of Piura is ſixty-two leagues, which we performed in fifty-four hours, excluſive of thoſe we reſted; ſo that the mules, which always travel one conſtant pace, go ſomething above a league an hour. To the town of Amotape, the only inhabited place in the whole road, is forty-eight leagues; the remaining part is one continued deſart. At leaving Tumbez, its river is croſſed in balzas, after which, for about two leagues, the road lies through thickets of algarrobale, and other trees, at the end of which the road runs along the ſea-coaſt to Mancora, twenty-four leagues from Tumbez. In order to travel this road, an opportunity at low water muſt be taken for croſſing a place called Malpaſſo, about ſix leagues from Tumbez; for being a high ſteep rock, waſhed by the ſea during the flood, and the top of it impaſſable from the many chaſms and precipices, there is a neceſſity of paſſing between the ſea and its baſis, which is about half a league in length: and this muſt be done before the flood returns, which ſoon covers this narrow way, though it is very ſafe at low water. During

the remainder of this journey, it is equally neceſſary to conſult the tide; for the whole country being ſandy, the mules would, from their ſinking ſo deep in it, be tired the firſt league or two. Accordingly travellers generally keep along the ſhore, which being waſhed by the breaking of the waves, the ſand is more compact and firm, and conſequently much eaſier to the beaſts. During the winter, there runs through Mancora a ſmall rivulet of freſh water, to the great relief of the mules; but in ſummer the little remaining in its courſe is ſo brackiſh, that nothing but abſolute neceſſity can render it tolerable. The banks of this rivulet are ſo fertile by its water, that it produces ſuch numbers of large algarrobales, as to form a ſhady foreſt.

From Mancora, the road for fourteen leagues runs between barren mountains, at ſome diſtance from the coaſt, with very troubleſome aſcents and declivities, as far as the breach of Parinnas, where the ſame cautions are to be obſerved as at Mancora, and is the ſecond ſtage; from whence the road lies over a ſandy plain ten leagues in length, to the town of Amotape, and at ſome diſtance from the coaſt.

This town, which ſtands in 4° 51′ 43″ ſouth latitude, is an appendix to the pariſh of Tumbez, belonging to its lieutenancy, and in the juriſdiction of Piura. The houſes are about thirty in number, and compoſed of the ſame materials with thoſe of Tumbez; but the inhabitants are only Indians and Meſtizos. A quarter of a league from it is a river of the ſame name, and whoſe waters are of ſuch prodigious uſe to the country, that it is every where cultivated, and divided into fields, producing plenty of the ſeveral grains, eſculent vegetables, and fruits, natural to a hot climate; but like Tumbez, is infeſted with moſchitos. This river in ſummer may be forded; but in winter, when the torrents deſcend from the mountains, it muſt be croſſed in a balza, the rapidity of its current being then conſiderably increaſed. There is a neceſſity for paſſing it in going to Piura, and after this for about four leagues the road lies through woods of lofty algarrobales. Theſe woods terminate on a ſandy plain, where even the moſt experienced drivers and Indians ſometimes loſe their way, the wind levelling thoſe hills of ſand which ſerved as marks, and effacing all the tracks formerly made; ſo that in travelling this country, the only direction is the ſun in the day-time, and the ſtars in the night; and the Indians being little acquainted with the ſituation of theſe objects, are often bewildered, and expoſed to the greateſt hardſhips before they can again find their way.

From what has been ſaid, the difficulties of travelling this road may be conceived. Beſides, as far as Amotape, not only all kinds of proviſions muſt be carried, but even water, and the requiſites for kindling a fire, unleſs your proviſion conſiſts of cold meat. In this laſt ſtage is a mine of cope, a kind of mineral tar, great quantities of which are carried to Callao, and other ports, being uſed in ſhips inſtead of naphtha, but has the ill quality of burning the cordage; its cheapneſs, however, induces them to uſe it mixed with naphtha.

The city of Piura, which is at preſent the capital of its juriſdiction, was the firſt Spaniſh ſettlement in Peru. It was founded in the year 1531 by Don Franciſco Pizarro, who alſo built the firſt church in it. This city was originally called San Miguel de Piura, and ſtood in the valley of Targaſala, from whence, on account of the badneſs of the air, it was removed to its preſent ſituation, which is on a ſandy plain. The latitude of it is 5° 11′ 1″ ſouth, and the variation of the needle we obſerved to be 8° 13′ eaſterly. The houſes are either of bricks dried in the ſun, or a kind of reeds called quinchas, and few of them have any ſtory. Here the corregidor reſides, whoſe juriſdiction extends on one ſide along Valles, and on the other among the mountains. Here is an office for the royal revenue, under an accountant or treaſurer, who relieve each other every ſix

months, one reſiding at the port of Paita, and the other in this place: at the former for receiving the duties on imports for goods landed there, and alſo for preventing a contraband trade; and at the latter for receiving the revenues and merchandizes on goods conſigned from the mountains to Loja, or going from Tumbez to Lima.

This city contains near fifteen hundred inhabitants; and among theſe ſome families of rank, beſides other Spaniards, Meſtizos, Indians, and Mulattoes. The climate is hot and very dry, rains being ſeldomer known here than at Tumbez: notwithſtanding which it is very healthy. It has a river of great advantage to the inhabitants as well as the adjacent country, the ſoil of which is ſandy, and therefore eaſier penetrated by the water; and being level, the water is conveyed to different parts by canals. But in the ſummer the river is abſolutely deſtitute of water, the little which deſcends from the mountains being abſorbed before it reaches the city; ſo that the inhabitants have no other method of procuring water, but by digging wells in the bed of the river, the depth of which muſt be proportioned to the length of time the drought has continued.

Piura has an hoſpital under the care of the Bethlemites; and though patients afflicted with all kinds of diſtempers are admitted, it is particularly famous for the cure of the French diſeaſe, which is not a little forwarded by the nature of the climate. Accordingly there is here a great reſort of perſons infected with that infamous diſtemper; and are reſtored to their former health by a leſs quantity of a ſpecific than is uſed in other countries, and alſo with greater eaſe and expedition.

As the whole territory of this juriſdiction within Valles produces only the algarroba, maize, cotton, grain, a few fruits and eſculent vegetables, moſt of the inhabitants apply themſelves to the breeding of goats, great numbers of which are continually ſold for ſlaughter, and from their fat they make ſoap, for which they are ſure of a good market at Lima, Quito, and Panama; their ſkins are dreſſed into leather called Cordoyan, and for which there is alſo a great demand at the above cities. Another branch of its commerce is the Cabuya, or Pita, a kind of plant from whence a very fine and ſtrong thread is made; and which abounds in the mountainous parts of its juriſdiction. Great advantages are alſo made from their mules; as all the goods ſent from Quito to Lima, and alſo thoſe coming from Spain, and landed at the port of Paita, cannot be forwarded to the places they are conſigned to but by the mules of this province; and from the immenſe quantity of goods coming from all parts, ſome idea may be formed of the number of beaſts employed in this trade, which continues more or leſs throughout the year, but is prodigious when the rivers are ſhallow.

Don George Juan being arrived at Piura, every thing was got ready with the utmoſt diſpatch, and on the 21ſt we continued our journey. The next day we reached the town of Sechura, ten leagues diſtant from Piura, according to the time we were travelling it. The whole country between theſe two places is a level ſandy deſart.

Though the badneſs and danger of the roads in Peru ſcarce admit of any other method of travelling than on mules, yet from Piura to Lima there is a conveniency of going in litters. Theſe inſtead of poles are ſuſpended on two large canes, like thoſe of Guayaquil, and are hung in ſuch a manner as not to touch the water in fording rivers, nor ſtrike againſt the rocks in the aſcents or deſcents of difficult roads.

As the mules hired at Piura perform the whole journey to Lima, without being relieved, and in this great diſtance, are many long deſarts to be croſſed, the natural fatigue of the diſtance, increaſed by the ſandineſs of the roads, render ſome intervals of reſt abſolutely neceſſary, eſpecially at Sechura, becauſe on leaving that town we enter the great deſart of the ſame name. We tarried here two days; during which we obſerved the latitude, and found it 5° 32′ 33½″ S.

The

The original ſituation of this town was contiguous to the ſea, at a ſmall diſtance from a point called Aguja; but being deſtroyed by an inundation, it was thought proper to build the preſent town of Sechura about a league diſtance from the coaſt, near a river of the ſame name, and which is ſubject to the ſame alterations as that of Piura; for at the time we croſſed it no water was to be ſeen; whereas from the months of February or March till Auguſt or September, its water is ſo deep, and the current ſo ſtrong, as to be paſſed only in balzas; as we found in our ſecond and third journey to Lima. When the river is dry, the inhabitants make uſe of the above-mentioned expedient of digging wells in its beds, where they indeed find water but very thick and brackiſh. Sechura contains about two hundred houſes of cane, and a large and handſome brick church; the inhabitants are all Indians, and conſiſt of near four hundred families, who are all employed either as drivers of the mules or fiſhermen. The houſes of all theſe towns are quite ſimple; the walls conſiſting only of common canes and reeds, fixed a little way in the ground, with flat roofs of the ſame materials, rain being hardly ever known here; ſo that they have ſufficient light and air, both the rays of the ſun and wind eaſily find a paſſage. The Indian inhabitants of this place uſe a different language from that common in the other towns both of Quito and Peru; and this is frequently the caſe in great part of Valles. Nor is it only their language which diſtinguiſhes them, but even their accent; for beſides their enunciation, which is a kind of melancholy ſinging, they contract half of their laſt words, as if they wanted breath to pronounce them.

The dreſs of the Indian women in theſe parts, conſiſts only of an anaco, like that of the women of Quito, except its being of ſuch a length as to trail upon the ground. It is alſo much larger, but without ſleeves, nor is it tied round them with a girdle. In walking they take it up a little, and hold it under their arms. Their head-dreſs conſiſts of cotton cloth laced or embroidered with different colours; but the widows wear black. The condition of every one may be known by their manner of dreſſing their hair, maids and widows dividing it into two plaited locks, one hanging on each ſhoulder, whilſt married women braid all their hair in one. They are very induſtrious, and uſually employed in weaving napkins of cotton and the like. The men dreſs in the Spaniſh manner; and conſequently wear ſhoes; but the women none. They are naturally haughty, of very good underſtandings, and differ in ſome cuſtoms from thoſe of Quito. They are a proof of what has been obſerved (Book VI. Chap. VI.) with regard to the great improvement they receive from a knowledge of the Spaniſh language; and accordingly it is ſpoken here as fluently as their own. They have genius, and generally ſucceed in whatever they apply themſelves to. They are neither ſo ſuperſtitious, nor ſo exceſſively given to vice as the others; ſo that except in their colour and other natural appearances, they may be ſaid to differ greatly from them; and even in their propenſity to intemperance, and other popular cuſtoms of the Indians, a certain moderation and love of order is conſpicuous among theſe. But to avoid tedious repetitions, I ſhall conclude with obſerving, that all the Indians of Valles from Tumbez to Lima are induſtrious, intelligent, and civilized beyond what is generally imagined.

The town of Sechura is the laſt in the juriſdiction of Piura, and its inhabitants not only refuſe to furniſh paſſengers with mules, but alſo will not ſuffer any perſon of whatever rank, to continue his journey, without producing the corregidor's paſſport. The intention of this ſtrictneſs is to ſuppreſs all abuſes in trade; for there being beſides this road which leads to the deſart, only one other called the Rodeo; one of them muſt be taken; if that of the deſart, mules muſt be hired at Sechura for carrying water for the uſe of the loaded mules when they have performed half their journey.

This water is put into large callebaſhes, or ſkins, and for every four loaded mules one mule loaded with water is allowed, and alſo one for the two mules carrying the litter. When they travel on horſeback, the riders carry their water in large bags or wallets made for that purpoſe; and every one of the paſſengers, whether in the litter or on horſeback, provides himſelf with what quantity he thinks ſufficient, as during the whole journey nothing is ſeen but ſand, and hills of it formed by the wind, and here and there maſſes of ſalt; but neither ſprig, herb, flower, or any other verdure.

On the 24th we left Sechura, and croſſed the deſart, making only ſome ſhort ſtops for the eaſe of our beaſts, ſo that we arrived the next day at five in the evening at the town of Morrope, twenty-eight or thirty leagues diſtance from Sechura, though falſely computed more by the natives. The extent and uniform aſpect of this plain, together with the continual motion of the ſand which ſoon effaces all tracks, often bewilders the moſt experienced guides, who, however, ſhew their ſkill in ſoon recovering the right way; for which they make uſe of two expedients: firſt, to obſerve to keep the wind directly in their face; and the reverſe upon their return; for the ſouth winds being conſtant here, this rule cannot deceive them: ſecond, to take up a handful of ſand at different diſtances, and ſmell to it; for as the excrements of the mules impregnate the ſand more or leſs, they determine which is the true road by the ſcent of it. Thoſe who are not well acquainted with theſe parts, expoſe themſelves to great danger, by ſtopping to reſt or ſleep; for when they again ſet forward, they find themſelves unable to determine the right road; and when they once have loſt the true direction, it is a remarkable inſtance of Providence if they do not periſh with fatigue or diſtreſs, of which there are many melancholy inſtances.

The town of Morrope conſiſts of between ſeventy and eighty houſes, built like thoſe in the preceding towns; and contains about one hundred and ſixty families, all Indians. Near it runs a river called Pozuelos, ſubject to the ſame changes as thoſe above-mentioned: though the lands bordering on its banks are cultivated, and adorned with trees. The inſtinct of the beaſts uſed to this road is really ſurpriſing; for even at the diſtance of four leagues, they ſmell its water, and become ſo impatient that it would be difficult to ſtop them: accordingly they purſue themſelves the ſhorteſt road, and perform the remainder of the journey with remarkable cheerfulneſs and diſpatch.

On the 26th we left Morrope, and arrived at Lambayeque, four leagues from it: and being obliged to continue there all the 27th, we obſerved its latitude, and found it 6° 41′ 37″ ſouth. This place conſiſts of about one thouſand five hundred houſes, built ſome of bricks, others of bajareques, the middle of the walls being of cane, and plaiſtered over, both on the inſide and outſide, with clay: the meaneſt conſiſt entirely of cane, and are the habitations of the Indians. The number of inhabitants amount to about three thouſand, and among them, ſome conſiderable and opulent families; but the generality are poor Spaniards, Mulattoes, Meſtizos, and Indians. The pariſh-church is built of ſtone, large and beautiful, and the ornaments ſplendid. It has four chapels called ramos, with an equal number of prieſts, who take care of the ſpiritual concerns of the Indians, and alſo attend, by turns, on the other inhabitants.

The reaſon why this town is ſo populous is, that the families which formerly inhabited the city of Sana, on its being ſacked in 1685, by Edward Davis, an Engliſh adventurer, removed hither; being under a farther neceſſity of changing their dwelling from a ſudden inundation of the river of the ſame name, by which every thing that had eſcaped the ravages of the Engliſh was deſtroyed. It is the reſidence of a corregidor, having under his juriſdiction, beſides many other towns, that of Morrope. One of the two officers of the revenue appointed for Truxillo, reſides here. A river called Lambay-

eque,

eque, waſhes this place; which, when the waters are high, as they were when we arrived here, is croſſed over a wooden bridge; but at other times may be forded, and often is quite dry.

The neighbourhood of Lambayeque, as far as the induſtry of its inhabitants have improved it, by canals cut from the river, abounds in ſeveral kinds of vegetables and fruits; ſome of the ſame kind with thoſe known in Europe, and others of the Creole kind, being European fruits planted there, but which have undergone conſiderable alterations from the climate. About ten leagues from it are eſpaliers of vines, from the grapes of which they make wine, but neither ſo good, nor in ſuch plenty as in other parts of Peru. Many of the poor people here employ themſelves in works of cotton, as embroidered handkerchiefs, quilts, mantelets, and the like.

On the 28th we left Lambayeque, and having paſſed through the town of Monſefu, about four or five leagues diſtant from it, we halted near the ſea-coaſt, at a place called Las Lagunas, or the Fens; theſe contain freſh water left in them by the overflowings of the river Sana. On the 29th we forded the river Xequetepeque, leaving the town of that name at the diſtance of about a quarter of a league, and in the evening arrived at the town of St. Pedro, twenty leagues from Lambayeque, and the laſt place in its juriſdiction. By obſervation we found its latitude to be 7° 25′ 49″ ſouth.

St. Pedro conſiſts of about one hundred and thirty baxareque houſes, and is inhabited by one hundred and twenty Indian families, thirty of whites and Meſtizos, and twelve of Mulattoes. Here is a convent of Auguſtines, though it ſeldom conſiſts of above three perſons, the prior, the prieſt of the town, and his curate. Its river is called Pacaſmayo, and all its territories produce grain and fruits in abundance. A great part of the road from Lambayeque to St. Pedro, lies along the ſhore, not indeed at an equal, but never at a great diſtance from it.

On the 30th of November we paſſed through the town of Payjan, which is the firſt in the juriſdiction of Truxillo, and on the firſt of December we reached that of Chocope, thirteen or fourteen leagues diſtant from St. Pedro. We found its latitude to be 7° 46′ 40″ ſouth. The adjacent country being watered by the river called Chicama, diſtributed to it by canals, produces the greateſt plenty of ſugar canes, grapes, fruits of different kinds, both European and Creole: and particularly maize, which is the general grain uſed in all Valles. From the banks of the river Lambayeque to this place, ſugar canes flouriſh near all the other rivers, but none of them equal, either in goodneſs or quantity, thoſe near the river Chicama.

Chocope conſiſts of betwixt eighty and ninety baxareque houſes, covered with earth. The inhabitants, who are between ſixty and ſeventy families, are chiefly Spaniards, with ſome of the other caſts; but not above twenty or twenty-five of Indians. Its church is built of bricks, and both large and decent. They report here, as ſomething very remarkable, that in the year 1726, there was a continual rain of forty nights, beginning conſtantly at four or five in the evening, and ceaſing at the ſame hour next morning, the ſky being clear all the reſt of the day. This unexpected event entirely ruined the houſes, and even the brick church, ſo that only ſome fragments of its walls remained. What greatly aſtoniſhed the inhabitants was, that during the whole time the ſoutherly winds not only continued the ſame, but blew with ſo much force, that they raiſed the ſand, though thoroughly wet. Two years after a like phenomenon was ſeen for about eleven or twelve days, but was not attended with the ſame deſtructive violence as the former. Since which time nothing of this kind has happened, nor had any thing like it been remembered for many years before.

CHAP.

CHAP. II. — *Our Arrival* [illegible] we reached Tambo de Ynca, and after travelling twelve [illegible]ancay, we had at length the pleaſure of entering the city

[illegible] ſet down during the whole courſe of the journey, it

WITHOUT ſtaying any longra is ſixty-two leagues, from Piura to Truxillo eighty-continued our journey, and arrive one hundred and thirteen: in all two hundred and according to our obſervations, in art of this long journey is generally performed by year 1535, by Don Franciſco Pizarro one continued ſand, the reflection of the ſun's notwithſtanding the ſandy ſoil, the unid be overcome by the heat; beſides the want of rounded by a brick wall, and its circuit ingly the road all along, is rather diſtinguiſhed order. It ſtands about half a league fro[illegible]unk under their burdens, than by any track it is the port of Guanchaco, the channel ontinually paſſing and re-paſſing throughout a creditable appearance. The generality ar[illegible]e prints of their feet. This country is alſo and ſuperb porticos; but the other of baxare[illegible]appens to be diſcovered, it is a ſure ſign of the frequent earthquakes; few have ſo muc[illegible] theſe ſtand near rivers, the moiſture of whole department reſides in this city; and alſo [illegible]roduce that verdure not to be ſeen in bez) with a chapter conſiſting of three dignitaries from their being deſtitute of water; chanter; four canons, and two prebendaries. Herds be improved.

by an accomptant and treaſurer; one of whom, as proviſions; as fleſh, fowl, bread, Lambayeque. Convents of ſeveral orders are eſtabli[illegible]nable price; but the traveller is hoſpital of our Lady of Bethlehem, and two nunneries, [illegible]ts of his own to do it for him; and the other of St. Tereſa. [illegible] with any one inclinable to do

The inhabitants conſiſt of Spaniards, Indians, and all [illegible]e the maſters of inns furniſh former are ſeveral very rich and diſtinguiſhed families. [illegible]-houſes, afford nothing but and friendly, and regular in their conduct. The women [illegible]nience of [illegible]rying water, follow nearly thoſe of Lima, an account of which will be giv[illegible] kinds [illegible]en utenſils. number of chaiſes are ſeen here, there not being a family of any [illegible]to [illegible]d in the the ſandy ſoil is very troubleſome in walking. [illegible]ich live

In this climate, there is a ſenſible difference between winter and [illegible]oting being attended with cold, and the latter with exceſſive heat. The co[illegible]cept valley is extremely fruitful, abounding with ſugar canes, maize, fruits [illegible] and with vineyards and olive yards. The parts of the country nearer [illegible] produce wheat, barley, and other grain; ſo that the inhabitants enjoy no[illegible] of all kinds of proviſions, but alſo make conſiderable exports to Panama, wheat and ſugars. This remarkable fertility has been improved to the grea[illegible] ment of the country; ſo that the city is ſurrounded by ſeveral groves, and walks of trees. The gardens alſo are well cultivated, and make a very appearance; which with a continual ſerene ſky, prove not leſs agreeable to tr[illegible] than to the inhabitants.

About a league from the city is a river, whoſe waters are conducted by various ca[illegible] through this delightful country. We forded it on the 4th when we left Truxillo; [illegible] on the 5th, after paſſing through Moche, we came to Biru, ten leagues from Tru[illegible] illo. The paſs of the corregidor of Truxillo muſt be produced to the alcalde o[illegible] Moche, for without this, as before at Sechura, no perſon would be admitted to continue his journey.

Biru, which lies in 8° 24′ 59″ ſouth latitude, conſiſts of fifty baxareque houſes, inhabited by ſeventy families, of Spaniards, Indians, Mulattoes, and Meſtizos. About half a league to the northward of it is a rivulet, from which are cut ſeveral trenches for watering the grounds. Accordingly the lands are equally fertile with thoſe of Truxillo,

the river. This place we

CHAP III. — *Account of the City of Lima, th*[illegible]etimes at a league distance

FORTUITOUS events may sometimes, by their [illegible]e Chao, and afterwards came among premeditated designs. Such was the unforese[illegible] by means of the Chimbadores, for otherwise the history of our voyage would ha[illegible] about a quarter of a league from remarkable and instructive particulars; as our ob[illegible] over vast sandy plains intercepted to the province of Quito. But by this invitation [illegible] enabled to lead the reader into that large and [illegible]y forded, is near a quarter of a league Lima, and the splendid city of that name, so [illegible]ich run during the whole year with queen of all the cities in South America. It [illegible]is purpose persons make it their business suffered a great imperfection, and the read[illegible]o stem the current, which is always very account of those magnificent particulars, [illegible]nd must have an exact knowledge of the itself, from a description of this famous ci[illegible]es in their passage, as otherwise the fording province. Nor would it have been an[illegible]e floods often shifting the beds of the river; the opportunity of contemplating tho[illegible]ves are not always safe; for the fords being value of our work, though already e[illegible]s, they are carried out of their depth by the cur- nautical remarks, as we hope will pr[illegible] the winter season, in the mountains, it often swells time it opens a method of extending[illegible]ed for several days, and the passengers are obliged for the farther utility and ornamen[illegible]ecially if they have with them any goods; for those noble principles, should be cond[illegible], by going six or eight leagues above the town, pass

My design however is not to [illegible]ashes; though even here not without danger, for if the instead of noble and magnifi[illegible]rong current, it is swept away by its rapidity, and carried ing scenes; ru[illegible]ated palaces[illegible]ed it, the waters were very low, notwithstanding which, we ther with th[illegible]erior buil[illegible]experiments made on its banks, that the velocity of the cur- ruin and c[illegible] by th[illegible]in twenty-nine seconds and a half; so that the current runs affecting [illegible]whe and a half in an hour. This velocity does not indeed equal unfortu[illegible]nine mentions in the narrative of his voyage down the river Ma- place[illegible] Amazons, at the Pango, or strait of Manceriche. But doubtless natu[illegible]ta is at its usual height, it exceeds even the celerity of the Pango: an[illegible]king our observations, it was at its lowest.

[illegible] of the town of Santa Miria de la Parrilla, for so it is called, we deter- [illegible]bservation of some stars, not having an opportunity of doing it by the [illegible]d it 8° 57′ 36″ S. It was first built on the sea coast, from which it is [illegible]ng above half a league distant. It was large, populous, the residence of [illegible]or, and had several convents. But in 1685, being pillaged and destroyed [illegible]bove-mentioned English adventurer, its inhabitants abandoned it, and such as [illegible]t able to remove to a place of greater security, settled in the place where it now [illegible]. The whole number of houses in it at present does not exceed thirty; and of [illegible] the best are only of baxareque, and the others of straw. These houses are [illegible]abited with about fifty poor families consisting of Indians, Mulattoes and Mestizos.

During our observations, we were entertained with a sight of a large ignited exhala- tion, or globe of fire in the air, like that mentioned in the first volume of this work, though not so large, and less effulgent. Its direction was continued for a considerable time towards the west, till having reached the sea coast, it disappeared with an explosion like that of cannon. Those who had not seen it were alarmed, and imagining it to be a cannon fired by some ship arrived in the port, ran to arms, and hastened on horseback to the shore, in order to oppose the landing of the enemy. But finding all quiet, they returned to the town, only leaving some centinels to send advice, if any thing extraor-

dinary ſhould happen.
all over Valles, that they ar
ably large, luminous, and co
This town and its neighbo
indeed ſome parts of the year
very ſeldom, none are to be ſeen
The country from Piura upwards
particular towns, ſituated near rive
numbers as at Santa.
Leaving this town on the 8th, we pr
eight leagues diſtant from Santa; and c
Yncas for the uſe of travellers. It has
a rivulet running near it.
On the 9th, we came to another plantatio
a league of which we paſſed through a village
with not more than ten or twelve houſes.
another rivulet. The latter plantation is about
From Manchan on the 10th, we travelled over
extremely troubleſome, particularly to the litters,
11th, we entered Guarmey, ſixteen leagues from M
three leagues further we reached the Paſcana, or re
Tambo or inn, and called the Tambo de Culebras.
ſmall and inconſiderable, conſiſting only of forty houſes
preceding. They are inhabited by about ſeventy families,
Its latitude is 10° 3′ 53″ ſouth. The corregidor has obtaine
nually, probably to be free from the intolerable plague o
where formerly was his reſidence.
On the 13th we proceeded from hence to a place called Ca
thirteen leagues of very bad road, being either ſandy plains,
Among the latter is one, not a little dangerous, called Salto del F
leap. It is an entire rock, very high, and towards the ſea aln
There is however no other way, though the precipice cannot be viewe
and even the mules themſelves ſeem afraid of it by the great caution
take their ſteps. On the following day we reached Guamanmayo, a l
diſtance from the river Barranca, and belonging to the town of Pativirca,
leagues from the Callejones. This town is the laſt in the juriſdiction
Guarmey.
Patavirca conſiſts only of fifty or ſixty houſes, and a proportional number
tants: among whom are ſome Spaniſh families, but very few Indians. Near
coaſt, which is about three quarters of a league from Guamanmayo, are ſtill rem
ſome huge walls of unburnt bricks; being the ruins of an antient Indian ſtruct
and its magnitude confirms the tradition of the natives, that it was one of the pala
of the antient caciques, or princes; and doubtleſs its ſituation is excellently adapte
to that purpoſe, having on one ſide a moſt fertile and delightful country, and on th
other, the refreſhing proſpect of the ſea.
On the 15th we proceeded to the banks of the river Barranca, about a quarter
a league diſtant. We eaſily forded it, under the direction of Chimbadores. It was
now very low, and divided into three branches, but being full of ſtones is always dan
gerous. About a league further is the town of Barranca, where the juriſdiction o

abitants Spaniards, though
we reached Guaura, which

arter of a league in length, and
houſes, ſome of which are of
s.
Franciſcans. Near it you paſs by
of the road, which is every where
as the eye can reach, being covered
elds of corn, maize, and other ſpecies
s confined to the neighbourhood of the
ge, makes the ſame beautiful appearance.
, ſtands a large tower, with a gate, and
erected before a ſtone bridge, under which
n that it waſhes the foundations of the houſes,
. From the river is a ſuburb which extends
e not contiguous to each other; and the groves
mixed, render the road very pleaſant. By a ſolar
f Guaura to be 11° 3′ 36″ ſouth. The ſky is clear,
althy and regular. For though it is not without a
yet the cold of the winter, and the heats of ſummer,

y from Guarmey we met with a great many remains of
ome were the walls of palaces; others, as it were large
ious high-ways; and others fortreſſes, or caſtles, properly
inroads of enemies. One of the latter monuments ſtands
s north of Pativirca, not far from a river. It is the ruins of
the top of an eminence at a ſmall diſtance from the ſea; but
e walls are now remaining.
came to the town of Chancay; and though the diſtance between
y twelve leagues, we concluded, by the time we were travelling,
rteen. From an obſervation we found its latitude 11° 33′ 47″ S. The
about three hundred houſes, and Indian huts; is very populous, and
habitants can boaſt of many Spaniſh families, and ſome of diſtinguiſhed
s its pariſh church, here is a convent of the order of St. Francis, and
hiefly ſupported by the benevolence of the inhabitants. It is the capital
diction of its name, and belongs to that of Guaura. The corregidor, whoſe
dence is at Chancay, appoints a deputy for Guaura. The adjacent country
lly very fertile, and every where well watered by canals cut from the river
ayo, which runs about a league and a half to the ſouthward of the town.
e parts are every where ſowed with maize, for the purpoſe of fattening hogs, in
ch article is carried on a very conſiderable trade; the city of Lima being furniſhed
m hence.

We left Chancay the 17th; and after travelling a league beyond the river Paſſamayo, which we forded, arrived at the tambo of the ſame name, ſituated at the foot of a mountain of ſand, exceeding troubleſome, both on account of its length, ſteepneſs, and difficulty in walking; ſo that it is generally paſſed in the night, the ſoil not being then ſo fatiguing.

From

From thence on the 18t
leagues from the town of C
of Lima.

From the diſtances carefully
appears that from Tumbez to Pi
nine, and from Truxillo to Lima
ſixty-four leagues. The greateſt pa
night; for the whole country being
rays is ſo violent, that the mules woul
water, herbage, and the like. Accord
by the bones of the mules which have
or path. For notwithſtanding they are c
the whole year, the winds quickly efface all t
ſo bare, that when a ſmall herb or ſpring h
of being in the neighbourhood of houſes. Fo
which fertilizes theſe arid waſtes, ſo that they p
the uninhabited parts: as they are ſuch merely
without which no creature can ſubſiſt, nor any lan

In the towns we met with plenty of all neceſſary
fruits, and wine; all extremely good, and at a reaſ
obliged to dreſs his meat himſelf, if he has not ſervan
for in the greateſt parts of the towns he will not meet
him that piece of ſervice, except in the larger cities whe
the table. In the little towns, the inns, or rather lodging
ſhelter; ſo that travellers are not only put to the inconve
wood and proviſions, from one town to another, but alſo all
Beſides tame fowl, pigeons, peacocks and geeſe, which are
meaneſt towns, all cultivated parts of this country abound in t
entirely on maize and the ſeeds of trees, and multiply exceedin
them is the uſual diverſion of travellers while they continue in an
theſe, and ſome ſpecies of ſmall birds, no others are to be had dur
ney. On the other hand, no ravenous beaſts, or venomous reptiles,

The diſtribution of waters by means of canals, which extend the ben
to diſtant parts of the country, owes its origin to the royal care and a
Yncas; who, among other marks of their zeal for promoting the happ
ſubjects, taught them by this method, to procure from the earth, whateve
ſary either for their ſubſiſtence, or pleaſure. Among theſe rivers, many a
dry or very low, when the waters ceaſe to flow from the mountains; but o
thoſe of Santa Baranca, Guaura, and Paſſamayo, continue to run with a full
during the greateſt drought.

The uſual time when the water begins to increaſe in theſe rivers is the beginni
January or February, and continues till June, which is the winter among the mo
tains; and, on the contrary, the ſummer in Valles; in the former it rains, while
the latter the ſun darts a violent heat, and the ſouth winds are ſcarce felt. From Jun
the waters begin to decreaſe, and in November or December the rivers are at their
loweſt ebb, or quite dry; and this is the winter ſeaſon in Valles, and the ſummer in
the mountains. So remarkable a difference is there in the temperature of the air,
though at ſo ſmall a diſtance.

CHAP.

happy conſequences, be claſſed
n cauſe which called us to Peru;
e been deprived of a great many
ſervations would have been limited
of the viceroy of Peru, we are now
uxuriant field, the fertile province of
iſtly made the capital of Peru, and the
will alſo appear that our work would have
r conſequently diſappointed in finding no
which his curioſity had doubtleſs promiſed
ty, and an accurate knowledge of the capital
ſmall mortification to ourſelves, to have loſt
e noble objects, which ſo greatly increaſe the
nriched with ſuch aſtronomical obſervations and
ve agreeable to the intelligent reader. At the ſame
our reſearches into the other more diſtant countries,
of this voyage; which, as it was founded on the moſt
ucted and cloſed with an uniform dignity.

repreſent Lima in its preſent ſituation, as I ſhould then,
cent objects, introduce the moſt melancholy and ſhock-
churches, towers, and other ſtately works of art, toge-
dings of which this opulent city conſiſted, now thrown into
e tremendous earthquake of October the 28th, 1746; the
ch reached Europe with the ſwiftneſs which uſually attends
d concerning which, we ſhall be more particular in another
erefore deſcribe Lima, as waſted by this terrible convulſion of
mporium of this part of America, and endeavour to give the reader
er glory, magnificence, opulence, and other particulars which ren-
in the world, before it ſuffered under this fatal cataſtrophe; the re-
ch cannot fail of being painful to every lover of his country, and every
anity.

Lima, or as it is alſo called the city of the Kings, was, according to
his hiſtory of the Yncas, founded by Don Franciſco Pizarro, on the
Epiphany, 1535; though others affirm that the firſt ſtone was not laid
th of January that year; and the latter opinion is confirmed by the act, or
f its foundation, ſtill preſerved in the archives of that city. It is ſituated in
cious and delightful valley of Rimac, an Indian word, and the true name of the
ſelf, from a corrupt pronunciation of which word the Spaniards have derived
a. Rimac is the name by which both the valley and the river are ſtill called.
is appellation is derived from an idol to which the native Indians uſed to offer ſacri-
e, as did alſo the Yncas, after they had extended their empire hither; and as it
was ſuppoſed to return anſwers to the prayers addreſſed to it, they called it by way of
diſtinction Rimac, or, he who ſpeaks. Lima, according to ſeveral obſervations we
made for that purpoſe, ſtands in the latitude of 12° 2′ 31″ S. and its longitude from
the meridian of Teneriffe is 299° 27′ 7¾″. The variation of the needle of 9° 2′ 30″
eaſterly.

Its

Its ſituation is one of the moſt advantageous that can be imagined; for being in the centre of that ſpacious valley, it commands the whole without any difficulty. Northward, though at a conſiderable diſtance, is the Cordillera, or chain of the Andes; from whence ſome hills project into the valley, the neareſt of which to the city are thoſe of St. Chriſtopher and Amancaes. The perpendicular height of the former, according to a geometrical menſuration performed by Don George Juan, and M. de la Condamine in 1737, is one hundred and thirty-four toiſes; but Father Feuillée makes it one hundred and thirty-ſix toiſes and one foot, which difference doubtleſs proceeds from not having meaſured with equal exactneſs, the baſe on which both founded their calculations. The height of the Amancaes, is little leſs than the former, and ſituated about a quarter of a league from the city.

The river, which is of the ſame name, waſhes the walls of Lima, and when not increaſed by the torrents from the mountains is eaſily forded; but at other times, beſides the increaſe of its breadth, its depth and rapidity render fording impoſſible; and accordingly a very elegant and ſpacious ſtone bridge is built over it, having at one end a gate, the beautiful architecture over which is equal to the other parts of this uſeful ſtructure. This gate forms the entrance into the city, and leads to the grand ſquare, which is very large and finely ornamented. In the centre is a fountain, equally remarkable for its grandeur and capacity. In the centre is a bronze ſtatue of Fame, and on the angles are four ſmall baſons. The water is ejected through the trumpet of the ſtatue, and alſo through the mouths of eight lions which ſurround it, and greatly heighten the beauty of this work. The eaſt ſide of the ſquare is filled by the cathedral and the archiepiſcopal palace, whoſe height ſurpaſſes the other buildings in the city. Its principal foundations, and the baſes of its columns and pilaſters, together with the capital front which faces the weſt, are of freeſtone; the inſide reſembles that of Seville, but not ſo large. The outſide is adorned with a very magnificent façade or frontiſpiece, riſing into two lofty towers, and in the centre is the grand portal. Round the whole runs a grand gallery, with a baluſtrade of wood, reſembling braſs in colour, and at proper diſtances are ſeveral pyramids, which greatly augment the magnificence of the ſtructure. In the north ſide of the ſquare is the viceroy's palace, in which are the ſeveral courts of juſtice, together with the offices of revenue, and the ſtate priſon. This was formerly a very remarkable building, both with regard to its largeneſs and architecture, but the greateſt part of it being thrown down by the dreadful earthquake with which the city was viſited, October 20th, 1687, it now conſiſts only of ſome of the lower apartments erected on a terras, and is uſed as the reſidence of the viceroy and his family.

On the weſt ſide which faces the cathedral, is the council-houſe, and the city priſon; the ſouth ſide is filled with private houſes, having only one ſtory; but the fronts being of ſtone, their uniformity, porticoes, and elegance, are a great embelliſhment to the ſquare, each ſide of which is eighty toiſes.

The form of the city is triangular, the baſe, or longeſt ſide, extending along the banks of the river. Its length is 1920 toiſes, or exactly two-thirds of a league. Its greateſt breadth from north to ſouth, that is, from the bridge to the angle oppoſite to the baſe, is 1080 toiſes, or two-fifths of a league. It is ſurrounded with a brick wall, which anſwers its original intention, but is without any manner of regularity. This work was begun and finiſhed by the Duke de la Plata, in the year 1685. It is flanked with thirty-four baſtions, but without platforms or embraſures; the intention of it being merely to incloſe the city, and render it capable of ſuſtaining any ſudden attack of the Indians. It has, in its whole circumference, ſeven gates and three poſterns.

On

On the ſide of the river oppoſite to the city is a ſuburb, called St. Lazaro, which has, within theſe few years, greatly increaſed. All the ſtreets of this ſuburb, like thoſe of the city, are broad, parallel, or at right angles, ſome running from north to ſouth, and others from eaſt to weſt, forming ſquares of houſes, each one hundred and fifty yards in front, the uſual dimenſions of all theſe quadras or ſquares in this country, whereas thoſe of Quito are only one hundred. The ſtreets are paved, and along them run ſtreams of water, conducted from the river a little above the city; and being arched over contribute to its cleanlineſs, without the leaſt inconveniency.

The houſes, though for the moſt part low, are commodious, and make a good appearance. They are all of baxareque and quincha. They appear indeed to be compoſed of more ſolid materials, both with regard to the thickneſs of the principal walls, and the imitation of cornices on them; and that they may the better ſupport themſelves under the ſhocks of earthquakes, of which this city has had ſo many dreadful inſtances, the principal parts are of wood, mortiſed into the rafters of the roof, and thoſe which ſerve for walls are lined both within and without with wild canes, and chaglias or oſiers; ſo that the timber-work is totally encloſed. Theſe oſiers are plaiſtered over with clay, and whitewaſhed, but the fronts painted in imitation of free-ſtone. They afterwards add cornices and porticos which are alſo painted of a ſtone colour. Thus the whole front impoſes on the ſight, and ſtrangers ſuppoſe them to be built of thoſe materials which they only imitate. The roofs are flat, and covered only ſo far as is neceſſary to keep out the wind and intercept the rays of the ſun. The pieces of timber, of which the roofs are formed, and which on the inſide are decorated with elegant mouldings and other ornaments, are covered with clay to preſerve them from the ſun. This ſlender covering is ſufficient, as no violent rains are ever known here. Thus the houſes are in leſs danger than if built of more compact materials; for the whole building yields to the motions of the earthquakes, and the foundations which are connected with the ſeveral parts of the building follow the ſame motion; and by that means are not ſo eaſily thrown down.

The wild canes, which ſerve for the inner parts of the walls, reſemble in length and bigneſs thoſe known in Europe, but without any cavity. The wood of them is very ſolid, and little ſubject to rot. The chaglia is alſo a kind of ſhrub growing wild in the foreſts and on the banks of rivers. It is ſtrong and flexible like the oſier. Theſe are the materials of which the houſes in all the towns of Valles mentioned in the preceding chapter, are built.

Towards the eaſt and weſt parts of the city, but within the walls, are a great many fruit and kitchen gardens; and moſt of the principal houſes have gardens for entertainment, being continually refreſhed with water by means of the canals.

The whole city is divided into the five following pariſhes: 1. Sagrario, which has three prieſts. — 2. St. Ann, and 3. St. Sebaſtian, each having two prieſts. — 4. St. Marcelo, and 5. St. Lazaro, each of which has one prieſt only. The pariſh of the latter extends itſelf five leagues, namely, to the valley of Carabaillo, and to it belong the many large plantations in that ſpace; chapels are therefore erected for celebrating maſs on days of precept, that the people may perform their duty without the fatigue and trouble of travelling to Lima. Here are alſo two chapels of eaſe: that of St. Salvador, in the pariſh of St. Ann; and that of the Orphans, in the Sagrario. There is alſo in the Cercado, one of the quarters of the town, a pariſh of Indians, under the care of the Jeſuits.

The convents here are very numerous; four Dominicans, viz. La Caſa grande, Recolleccion de la Magdalena, the college of St. Thomas appropriated to literature,

and Santa Roſa. Three of Franciſcans, viz. Caſa Grande, Recoletos de Nueſtra Senora de los Angeles, or Guadalupe, and Los Deſcalzos de San Diego: the latter is in the ſuburb of San Lazaro. Three of the order of Auguſtin, namely, Caſa Grande; the ſeminary of San Ildefonſo, a literary college; and the noviciate at Nueſtra Senora de Guia. Three alſo belong to the order of Mercy, namely, the Caſa Principal, the college of St. Pedro Nolaſco, and a Recolleccion, called Bethlehem.

The Jeſuits have ſix colleges or houſes, which are thoſe of St. Paul, their principal college; St. Martin, a college for ſecular ſtudents; St. Anthony, a noviciate; the Houſe of Poſſeſſion, or Deſamparados, under the invocation of Nueſtra Senora de los Dolores; a college in the Circado, where the Indians are inſtructed in the precepts of religion; and that of the Chacarilla, appointed for the exerciſes of St. Ignatius; and accordingly all ſeculars, on their deſire to perform them, are admitted. They are alſo allowed the liberty of beginning when moſt convenient for themſelves, and are handſomely entertained by the college during the eight days of their continuance. But it muſt be obſerved, that of all theſe convents, the Caſas Grandes are now the moſt conſiderable; the others, beſides being ſmall, have but few members, and ſmall revenues.

Beſides the preceding nineteen convents and colleges, here are alſo an oratory of St. Philip Neri; a monaſtery of the order of St. Benedict, with the title of Nueſtra Senora de Monſerrat, the abbé of which is commonly the only member, and ſent from Spain; and though this foundation is one of the moſt ancient in the whole city, its revenue is hardly ſufficient to ſupport any more: a convent called Nueſtra Senora de la Buena Muerte, or the order of that name, generally known by the name of Agonizantes. This order founded an hoſpital in the city, in 1715, under the particular direction of the Fathers Juan Mugnos, and Juan Fernandez, who, with a lay brother of the ſame order having in 1736 obtained a licence from the council of the Indies, went from Spain and founded a convent of community in every form. In the ſuburb of St. Lazaro is alſo a convent of St. Francis de Paula, a modern foundation, under the name of Nueſtra Senora del Scorro.

There are alſo in Lima three other charitable foundations, namely, St. Juan de Dios, ſerved by the religious of that order, and appropriated to the relief of perſons recovering from ſickneſs; and two of Bethlemites; one of which, being the Caſa Grande, is without the city, and founded for the relief of ſick Indians, who are taken care of in Santa Anna; and the other within the city, called that of the Incurables, being appropriated to perſons labouring under diſeaſes of that nature. The latter, as we have already obſerved,* was founded ſo early as the year 1671. This opulent city has alſo nine other hoſpitals, each appropriated to ſome peculiar charity: —

1. San Andres, a royal foundation admitting only Spaniards.
2. San Pedro, for poor eccleſiaſtics.
3. El Eſpiritu Santo, for mariners, and ſupported by the ſhips belonging to theſe ſeas, their crews being properly aſſeſſed for that purpoſe.
4. St. Bartholome, for the negroes.
5. Senora Santa Anna, for the Indians.
6. San Pedro de Alcantara, for women.
7. Another for that uſe, under the care of the Bethlemite fathers, erected before their Caſa Grande.

* Chap. IV. Lib. V.

8. La Caridad, alſo for women.
9. San Lazaro, for the lepers, which, with thoſe already enumerated, make twelve.

Here are alſo fourteen nunneries, the number of perſons in which would be ſufficient to people a ſmall town. The five firſt are regulars, and the other nine recollects:

1. La Encarnation. — 2. La Conception. — 3. Santa Cathalina. — 4. Santa Clara. — 5. La Trinidad. — 6. El Carmen. — 7. Santa Tereſa, ò El Carmen baxo. — 8. Las Deſcalzas de San Joſeph. — 9. Las Capuchinas. — 10. Las Nazarenas. — 11. Las Mercidarias. — 12. Santa Roſa. — 13. Las Trinitarias Deſcalzas. — 14. Las Monjas del Prado.

Laſtly, Here are four other conventual houſes, where ſome few of the ſiſters are not recluſes, though moſt of them obſerve that rule. Theſe houſes are:

1. Santa Roſa de Viterbo. — 2. Nueſtra Senora del Patrocinio. — 3. Nueſtra Senora de Capacabana, for Indian ladies. — 4. San Joſeph.

The laſt is a retreat for women who deſire to be divorced from their huſbands. There is alſo a houſe conſtituted in the manner of convents, for poor women, and under the direction of an eccleſiaſtic appointed by the archbiſhop, who is alſo their chaplain.

The moſt numerous of all theſe nunneries are the Incarnation, Conception, Santa Clara, and Santa Cathalina. The others are indeed not ſo large; but the Recollects, in the rectitude and auſterity of their lives, are an example to the whole city.

Here is alſo an orphan-houſe, divided into two colleges, one for the boys, and the other for the girls; beſides ſeveral chapels, in different parts of the city: but the following liſt will ſhew at once, the pariſhes, hoſpitals, churches, and monaſteries of Lima, which was always no leſs conſpicuous with regard to a zeal for religion than for ſplendour.

Liſt of the Pariſhes, Convents of each Order, Hoſpitals, Nunneries, and Conventual Houſes in Lima.

Pariſhes, ſix.

Convents of San Domingo, four. — Of San Francis, three. — Of San Auguſtin, three. — Of La Merced, three.

Colleges of Jeſuits, ſix.

Oratory of St. Philip Neri, one.

Monaſtery of Benedictins, one. — Of San Franciſco de Paula, one. — Of Agonizantes, one. — Of San Juan de Dios, one. — Of Bethlemites, two.

Nunneries of Regulars, five. — Of Recollects, nine.

Conventual Houſes, four. — Houſes for poor women, one. — Orphan houſe, one. — Hoſpitals, twelve.

All the churches, both conventual and parochial, and alſo the chapels, are large, conſtructed partly of ſtone, and adorned with paintings and other decorations of great value; particularly the cathedral, the churches of St. Dominic, St. Francis, St. Auguſtin, the Fathers of Mercy, and that of the Jeſuits, are ſo ſplendidly decorated, as to ſurpaſs deſcription, an idea being only to be formed by the ſight. The riches and pomp of this city, eſpecially on ſolemn feſtivals, are aſtoniſhing. The altars, from

their very baſes to the borders of the paintings, are covered with maſſive ſilver, wrought into various kinds of ornaments. The walls alſo of the churches are hung with velvet, or tapeſtry of equal value, adorned with gold and ſilver fringes; all which, in this country, is remarkably dear; and on theſe are ſplendid pieces of plate, in various figures. If the eye be directed from the pillars, walls, and ceiling, to the lower part of the church, it is equally dazzled with glittering objects, preſenting themſelves on all ſides: among which are candleſticks of maſſive ſilver, ſix or ſeven feet high, placed in two rows along the nave of the church: emboſſed tables of the ſame metal, ſupporting ſmaller candleſticks; and in the intervals betwixt them pedeſtals on which ſtand the ſtatues of angels. In fine, the whole church is covered with plate, or ſomething equal to it in value; ſo that divine ſervice, in theſe churches, is performed with a magnificence ſcarce to be imagined; and the ornaments, even on common days, with regard to their quantity and richneſs, exceed thoſe which many cities of Europe pride themſelves with diſplaying on the moſt common occaſions.

If ſuch immenſe riches are beſtowed on the body of the church, how can imagination itſelf form an idea of thoſe more immediately uſed in divine worſhip, ſuch as the ſacred veſſels, the chalices, oſtenſoriums, &c. in the richneſs of which there is a ſort of emulation between the ſeveral churches? In theſe the gold is covered with diamonds, pearls, and precious ſtones, ſo as to dazzle the eye of the ſpectator. The gold and ſilver ſtuffs for veſtments and other decorations, are always of the richeſt and moſt valuable among thoſe brought over by the regiſter ſhips. In fine, whatever is employed in ornamenting the churches, is always the richeſt of the kind poſſible to be procured.

The principal convents are very large, with convenient and airy apartments. Some parts of them, as the outward walls which incloſe them, are of unburnt brick; but the building itſelf of quinchas or baxareques. The roofs of many are arched with brick, others only with quinchas; but of ſuch curious architecture, as entirely to conceal the materials; ſo that the frontiſpieces and principal gates have a majeſtic appearance. The columns, friezes, ſtatues, and cornices, are of wood, finely carved, but ſo nearly imitating the colour and appearance of ſtone, as only to be diſcovered by the touch. This ingenious imitation does not proceed from parſimony, but neceſſity; in order to avoid as much as poſſible the dreadful devaſtations of earthquakes, which will not admit of ſtructures built of pondrous materials.

The churches are decorated with ſmall cupolas of a very pretty appearance: and though they are all of wood, the ſight cannot diſtinguiſh them from ſtone. The towers are of ſtone from the foundation the height of a toiſe and a half, or two toiſes, and from thence to the roof of the church of brick, but the remainder of wood painted of a free-ſtone colour, terminating in a ſtatue, or image, alluding to the name of the church. The height of theſe may be nearly known from that of St. Dominic, which, by a geometrical menſuration, we found to be between fifty and ſixty yards; a height which, though ſmall in proportion to the largeneſs of the ſtructure, is a neceſſary caution, both with regard to the ſhocks of earthquakes, and the weight of the bells, which, in ſize and number, exceed thoſe of Spain, and, on a general ringing, produce a very agreeable harmony.

All the convents are furniſhed with water from the city, though not from that of the rivulets, which, as we before obſerved, run through the ſtreets in covered channels; but brought from a ſpring by means of pipes: while, on the other hand, both the monaſteries and nunneries are each obliged to maintain a fountain in the ſtreet, for the public uſe of poor people, who have not the conveniency of water in their houſes.

The viceroys, whoſe power extends over all Peru, uſually reſide at Lima: but the province and audience of Quito has been lately detached from it; as we have obſerved in our account of that province. This government is triennial, though, at the expiration of that term, the ſovereign may prolong it. This office is of ſuch importance, that the viceroy enjoys all the privileges of royalty. He is abſolute in all affairs, whether political, military, civil, criminal, or relating to the revenue, having under him offices and tribunals for executing the ſeveral branches of government; ſo that the grandeur of this employment is in every particular equal to the title. For the ſafety of his perſon, and the dignity of his office, he has two bodies of guards; one of horſe conſiſting of one hundred and ſixty private men, a captain, and a lieutenant: their uniform is blue, turned up with red, and laced with ſilver. This troop conſiſts entirely of picked men, and all Spaniards. The captain's poſt is eſteemed very honourable. Theſe do duty at the principal gate of the palace; and when the viceroy goes abroad, he is attended by a piquet-guard conſiſting of eight of theſe troopers. The ſecond is that of the halberdiers, conſiſting of fifty men, all Spaniards, dreſſed in a blue uniform, and crimſon velvet waiſtcoats laced with gold. Theſe do duty in the rooms leading to the chamber of audience, and private apartments. They alſo attend the viceroy when he appears in public, or viſits the offices and tribunals. The only officer of this body is a captain, whoſe poſt is alſo reckoned very eminent. Both captains are nominated by the viceroy. Beſides theſe, there is another guard within the palace, conſiſting of one hundred private men, a captain, lieutenant, and ſub-lieutenant; being a detachment from the garriſon of Callao. Theſe are occaſionally employed in executing the governor's orders, and the decrees of the tribunals, after they have received the ſanction of his aſſent.

The viceroy, beſides aſſiſting at the courts of juſtice, and the councils relating both to the finances and war, gives every day public audience to all ſorts of perſons; for which purpoſe, there are in the palace three very grand and ſpacious rooms. In the firſt, which is adorned with the portraits of all the viceroys, he receives the Indians and other caſts. In the ſecond, he gives audience to the Spaniards; and, in the third, where under a rich canopy are placed the pictures of the King and Queen then reigning, he receives thoſe ladies who deſire to ſpeak to him in private without being known.

The affairs relating to the government are expedited by a ſecretary of ſtate, with an aſſiſtant, properly qualified for ſuch an arduous poſt. From this office are iſſued the orders for paſſports, which muſt be had from every corregidor in his juriſdiction. The ſecretary has alſo the power of filling all juridical employments as they become vacant, for the term of two years; as alſo thoſe of the magiſtracy, who, at the expiration of their term, have not been replaced by others of His Majeſty's nomination. In a word, this office may be ſaid to be the channel by which all affairs relating both to war and government are tranſacted.

All cauſes relating to juſtice are tried in the court called the *Audiencia*, from the decrees of which there is no appeal to the ſupreme council of the Indies, unleſs after notorious injuſtice, or a ſecond trial; as the viceroy himſelf preſides in it. The audiencia, which is the chief court at Lima, is compoſed of eight auditors or judges, and a fiſcal for civil cauſes. This court is held in the viceroy's palace, in the three ſaloons appropriated to it. In one the deliberations are held, and in the other two, the cauſes are tried either publicly or privately, the ſenior judge always preſiding. Criminal cauſes are tried in a fourth apartment, the judges being four alcaldes of the court, and a

criminal fiſcal. There is alſo a fiſcal protector of the Indians, and ſome ſupernumeraries.

Next to the tribunal of audience is the chamber of accounts, conſiſting of a commiſſioner, five chief accountants, two receivers, and two directors, with other inferior officers belonging to each claſs. Here all corregidors, intruſted to collect the revenue, paſs their accounts. Here alſo the diſtributions and managements of the royal revenue are regulated.

Laſtly, the royal treaſury, under a treaſurer, accountant, and agent, who have the ſuperintendance of all His Majeſty's revenue of what kind ſoever; ſince whatever revenue ariſes from the other parts of this province is remitted to Lima as the capital of the kingdom.

The corporation of Lima conſiſts of regidores or aldermen, and alfere zreal, or ſheriff, and two alcaldes, or royal judges; all being noblemen of the firſt diſtinction in the city. Theſe have the direction of the police, and the ordinary adminiſtration of juſtice. The alcaldes preſide alternately every month; for, by a particular privilege of this city, the juriſdiction of its corregidor extends only to the Indians.

Here is a court for the effects of deceaſed perſons, which takes cognizance of the goods of thoſe dying inteſtate, and without lawful heir; and likewiſe of thoſe entruſted with the effects of other perſons. Its conſiſts of a judge, who is generally one of the auditors, a counſellor, and an accountant.

The next tribunal is that of commerce, or the conſulado. Its principal officers are a preſident and two conſuls. All who are entered in the liſt of merchants are members of it, and have a vote in the choice of theſe officers, who, with an aſſeſſor, decide all commercial diſputes and proceſſes, by the ſame rule as the conſulados at Cadiz and Bilboa.

Lima has alſo a corregidor, whoſe juriſdiction extends to all Indians both within the city and five leagues round it. The principal places in this juriſdiction are Surco, Los Chorillos, Miraflores, La Magdalena, Lurigancho, Late, Pachacama, and Lurin, together with the Indian inhabitants of the two ſuburbs of Callao, called New and Old Pitipiti. The infinite number of Indians who inhabited this valley before and at the time of the conqueſt, are now reduced to the few inhabitants of the above-mentioned places; and have only two caziques, namely, thoſe of Miraflores and Surco, and theſe in ſuch low circumſtances, as to teach muſic at Lima for ſubſiſtence.

The cathedral chapter, beſides the archbiſhop, conſiſts of the dean, archdeacon, chanter, treaſurer, and rector, four canons by ſuffrage, five by preſentation, ſix prebendaries, and ſix ſemi-prebendaries; but the eccleſiaſtical tribunal conſiſts only of the archbiſhop and his chancellor. His ſuffragans are the biſhops of Panama, Quito, Truxillo, Guamanga, Arequipa, Cuzco, St. Jago, and Conception; the two laſt are in the kingdom of Chili.

The tribunal of inquiſition conſiſts of two inquiſitors and a fiſcal, who, like the ſubordinate officers are nominated by the inquiſitor-general; and, in caſe of a vacancy, filled up by the ſupreme council of the inquiſition.

The tribunal of the Cruzada is conducted by a ſub-delegate commiſſary, an acountant, and treaſurer, with other inferior officers. But the dean or ſenior judge of the audience, generally aſſiſts at its deliberations.

Laſtly, here is alſo a mint with its proper officers, where gold and ſilver are coined.

In the univerſity and colleges, the happy geniuſes of the natives are improved by divine and human learning, and, as we ſhall ſhew in the ſequel, ſoon give elegant ſpecimens

cimens of their future acquiſitions. They are in this much more indebted to nature than either to art or to their own application; and if they do not equally diſtinguiſh themſelves in other ſtudies, it is not for want of talents, but of proper perſons to inſtruct them in the neceſſary elements. For by their ready comprehenſion of whatever is taught them we may conclude, that their abilities are equal to other improvements. The chief of theſe ſeminaries is the univerſity of St. Mark, and the colleges of St. Toribio, St. Martin, and St. Philip. In the former are chairs for all the ſciences, and filled by ſuffrage; a method always favourable for perſons of learning and underſtanding. Some of theſe profeſſors have, notwithſtanding the vaſt diſtance, gained the applauſe of the literati of Europe.

The univerſity makes a ſtately appearance without, and its inſide is decorated with ſuitable ornaments. It has a large ſquare court, with a handſome vaulted piazza round it. Along the ſides are the halls, where lectures are read; and in one of its angles is the theatre for the public arts, adorned with the portraits of the ſeveral great men who had their education in this ſeat of learning, in frames finely ornamented with ſculpture, and richly gilded; as are alſo the two rows of ſeats which extend entirely round the theatre.

From what has been ſaid it ſufficiently appears, that Lima is not only large, magnificent, and diſtinguiſhed, as the capital of the kingdom, by the reſidence of the viceroy, and the ſuperior courts and offices, but alſo that it has an acknowledged ſuperiority over the other cities in theſe parts from the public nurſeries erected for the advancement of learning and the ſciences.

The richneſs of the churches, and the ſplendour with which divine ſervice is performed, we have already deſcribed. The magnificence of its inhabitants and of its public ſolemnities are proportional, and diſplayed with a dignity peculiar to minds inflamed with a deſire of honour, and who value themſelves on celebrating the principal ſolemnities in a manner which diſtinguiſhes Lima from the other cities of its kingdom; though the latter are not wanting in their endeavours to vie with their capital.

Of all the ſolemnities obſerved in America, the public entrance of the viceroy is the moſt ſplendid; and in which the amazing pomp of Lima is particularly diſplayed. Nothing is ſeen but rich coaches and calaſhes, laces, jewels, and ſplendid equipages, in which the nobility carry their emulation to an aſtoniſhing height. In a word, this ceremony is ſo remarkable, that I flatter myſelf the reader will not be diſpleaſed at the deſcription.

CHAP. IV.—*Of the Public Entrance of the Viceroy at Lima; his Reception, and the chief annual Solemnities.*

ON the landing of the viceroy at Paita, two hundred and four leagues from Lima, he ſends a perſon of great diſtinction, generally ſome officer of his retinue, to Lima, with the character of an ambaſſador; and, by a memoir, informs his predeceſſor of his arrival, in conformity to His Majeſty's orders, who had been pleaſed to confer on him the government of that kingdom. On this ambaſſador's arrival at Lima, the late viceroy ſends a meſſenger to compliment him on his ſafe arrival; and on diſmiſſing the ambaſſador, preſents him with ſome jewel of great value, and a juriſdiction or two which happen at that time to be vacant, together with an indulgence of officiating by deputy, if moſt agreeable to him. The corregidor of Piura receives the new viceroy at Paita, and provides litters, mules, and every other neceſſary for the viceroy and his retinue, as far

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as the next juriſdiction. He alſo orders booths to be built at the halting-places in the deſarts; attends him in perſon, and defrays all the expences, till relieved by the next corregidor. Being at length arrived at Lima, he proceeds, as it were incognito, through the city to Callao, about two leagues and a half diſtant. In this place he is received and acknowledged by one of the ordinary alcaldes of Lima, appointed for that purpoſe, and alſo by the military officers. He is lodged in the viceroy's palace, which on this occaſion is adorned with aſtoniſhing magnificence. The next day all the courts, ſecular and eccleſiaſtical, wait on him from Lima, and he receives them under a canopy in the following order. The audiencia, the chamber of accounts, the cathedral chapter, the magiſtracy, the conſulado, the inquiſition, the tribunal de Cruzada, the ſuperiors of the religious orders, the colleges, and other perſons of eminence. On this day the judges attend the viceroy to an entertainment given by the alcalde; and all perſons of note take a pride in doing the like to his attendants. At night there is a play, to which the ladies are admitted veiled, and in their uſual dreſs, to ſee the new viceroy.

The ſecond day after his arrival at Callao, he goes in a coach provided for him by the city, to the chapel de la Legua, ſo called from its being about half-way between Callao and Lima, where he is met by the late viceroy, and both alighting from their coaches, the latter delivers to him a truncheon as the enſign of the government of the kingdom. After this, and the uſual compliments, they ſeparate.

If the new viceroy intends to make his public entry into Lima in a few days, he returns to Callao, where he ſtays till the day appointed; but as a longer ſpace is generally allowed for the many preparatives neceſſary to ſuch a ceremony, he continues his journey to Lima, and takes up his reſidence in his palace, the fitting up of which on this occaſion is committed to the junior auditor, and the ordinary alcalde.

On the day of public entry, the ſtreets are cleaned, and hung with tapeſtry, and magnificent triumphal arches erected at proper diſtances. At two in the afternoon the viceroy goes privately to the church belonging to the monaſtery of Montſerrat, which is ſeparated by an arch and a gate from the ſtreet, where the cavalcade is to begin. As ſoon as all who are to aſſiſt in the proceſſion are aſſembled, the viceroy and his retinue mount on horſes, provided by the city for this ceremony, and the gates being thrown open, the proceſſion begins in the following order:

The militia; the colleges; the univerſity, with the profeſſors in their proper habits; the chamber of accompts; the audiencia on horſes, with trappings; the magiſtracy, in crimſon velvet robes, lined with brocade of the ſame colour, and a particular kind of caps on their heads, a dreſs only uſed on this occaſion. Some members of the corporation who walk on foot, ſupport the canopy over the viceroy; and the two ordinary alcaldes, which are in the ſame dreſs, and walk in the proceſſion, act as equerries, holding the bridle of his horſe. This part of the ceremony, though prohibited by the laws of the Indians, is ſtill performed in the manner I have deſcribed; for the cuſtom being of great antiquity, the magiſtrates have not thought proper to alter it, that the reſpect to the viceroy might not ſuffer any diminution, and no perſon has yet ventured to be the firſt in refuſing to comply with it.

This proceſſion is of conſiderable length, the viceroy paſſing through ſeveral ſtreets till he comes to the great ſquare, in which the whole company draw up facing the cathedral, where he alights, and is received by the archbiſhop and chapter. Te Deum is then ſung before the viceroy, and the officers placed in their reſpective ſeats; after which he again mounts his horſe, and proceeds to the palace gate, where he is received by the audiencia, and conducted to an apartment in which a ſplendid collation is provided, as are alſo others for the nobility in the antichambers.

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On the morning of the following day he returns to the cathedral in his coach, with the retinue and pomp uſual in ſolemn feſtivals and public ceremonies. He is preceded by the whole troop of horſe-guards, the members of the ſeveral tribunals in their coaches, and after them the viceroy himſelf with his family, the company of halberdiers bringing up the rear. On this occaſion all the riches and ornaments of the church are diſplayed; the archbiſhop celebrates in his pontifical robes the maſs of thankſgiving; and the ſermon is preached by one of the beſt orators of the chapter. From hence the viceroy returns to the palace attended by all the nobility, who omit nothing to make a ſplendid figure on theſe occaſions. In the evening of this, and the two following days, the collations are repeated, with all the plenty and delicacy imaginable. To increaſe the feſtivity, all women of credit have free acceſs to the halls, galleries, and gardens of the palace, when they are fond of ſhewing the diſpoſitions of their genius, either by the vivacity of repartees, or ſpirited converſations, in which they often ſilence ſtrangers of very ready wit.

This ſhew and ceremony is ſucceeded by bull-feaſts at the city's expence, which continue five days; the three firſt for the viceroy, and the two latter in compliment to the ambaſſador who brought advice of his arrival, and the great honour conferred on him by the ſovereign in the government of this kingdom.

This ambaſſador, who, as I before obſerved, is always a perſon of eminent quality, makes alſo a public entrance into Lima on horſeback on the day of his arrival, and the nobility being informed of his approach, go out to receive and conduct him to the palace, from whence they carry him to the lodgings prepared for him. This ceremony uſed to be immediately followed by feaſts and public diverſions; but in order to avoid that inconvenience, juſt when the city is every where buſied in preparing for the reception of the viceroy, they are deferred, and given at one and the ſame time, as above recited.

The bull-feaſts are ſucceeded by that ceremony, in which the univerſity, the colleges, the convents and nunneries, acknowledged him as their viceroyal protector. This is alſo accompanied with great ſplendour, and valuable prizes are beſtowed on thoſe who make the moſt ingenious compoſitions in his praiſe. Theſe ceremonies, which greatly heighten the magnificence of this city, are ſo little known in Europe, that I ſhall be excuſed for enlarging on them.

They are begun by the univerſity, and the rector prepares a poetical conteſt, adapted to diſplay either the wit or learning of the competitors. After publiſhing the themes, and the prizes to be given to thoſe who beſt handle the ſubjects they have choſen, he waits on the viceroy to know when he will be pleaſed to honour the univerſity with his preſence; and, the time being fixed, every part of the principal court is adorned with the utmoſt magnificence. The prizes, which are placed in order, diſtinguiſh themſelves by their richneſs, while the pillars and columns are hung with emblematical devices, or pertinent apophthegms on poliſhed ſhields, ſurrounded by the moſt beautiful mouldings.

The reception is in the following order. On the viceroy's entering the court, he is conducted to the rectorial chair, which, on this occaſion, glitters with the magnificence of an Eaſtern throne. Oppoſite to it ſits the rector, or, in his abſence, one of the moſt eminent members of that learned body, who makes a ſpeech, in which he expreſſes the ſatisfaction the whole univerſity feels in ſuch a patron. After this the viceroy returns to his palace, where, the day following, the rector preſents him with a book, containing the poetical conteſt, bound in velvet, and plated at the corners with gold, accompanied with ſome elegant piece of furniture, whoſe value is never leſs than eight hundred or a thouſand crowns.

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The principal end of the univerſity in this ceremony being to ingratiate itſelf with the viceroy and his family, the rector contrives that the poetical pieces which gain the prizes be made in the name of the principal perſons of his family, and accordingly the moſt diſtinguiſhed prizes are preſented to them; and there being twelve ſubjects in the conteſt, there are three prizes for each, of which the two inferior fall to thoſe members whoſe compoſitions are moſt approved of. Theſe prizes are pieces of plate, valuable both for their weight and workmanſhip.

The univerſity is followed by the colleges of St. Philip and St. Martin, with the ſame ceremonies, except the poetical conteſt.

Next follow the religious orders, according to the antiquity of their foundation in the Indies. Theſe preſent to the viceroy the beſt theſes maintained by ſtudents at the public acts.

The viceroy is preſent at them all, and each diſputant pays him ſome elegant compliment, before he enters on his ſubject.

The ſuperiors of the nunneries ſend him their congratulatory compliments, and when he is pleaſed in return to viſit them, they entertain him with a very fine concert of muſic, of which the vocal parts are truly charming; and at his retiring they preſent him with ſome of the chief curioſities which their reſpective inſtitutes allow to be made by them.

Beſides theſe feſtivities and ceremonies, which are indeed the moſt remarkable, there are alſo others, ſome of which are annual, in which the riches and liberality of the inhabitants are no leſs conſpicuous. Particularly on New-year's day, at the election of alcaldes, who being afterwards confirmed by the viceroy, appear publicly on horſeback the ſame evening, and ride on each ſide of him, in very magnificent habits ornamented with jewels, and the furniture of their horſes perfectly anſwerable. This cavalcade is very pompous, being preceded by the two companies of horſe-guards, the halberdiers, followed by the members of the tribunals in their coaches, the viceroy's retinue, and the nobility of both ſexes.

On Twelfth day in the morning, and the preceding evening, the viceroy rides on horſeback through the town, with the royal ſtandard carried in great pomp before him. This is performed in commemoration of the building of the city, which, as we have already obſerved, was begun on this day; ſolemn veſpers are ſung in the cathedral, and a maſs celebrated; and the ceremony is concluded with a cavalcade, like that on New-year's day.

The alcaldes choſen for the current year give public entertainments in their houſes, each three nights ſucceſſively; but that the feaſts of one might not interfere with thoſe of another, and occaſion reſentments, they agree for one to hold his feaſts the three days immediately ſucceeding the election, and the other on Twelfth day and the two following. Thus each has a great number of gueſts, and the entertainments are more ſplendid and ſumptuous. The other feaſts in the courſe of the year are not inferior to theſe either with regard to numbers or expence; at leaſt the number of them muſt excite a high idea of the wealth and magnificence of Lima.

CHAP. V. — *Of the Inhabitants of Lima.*

HAVING, in our accounts of ſeveral towns through which we paſſed to Lima, included alſo the inhabitants, we ſhall obſerve the ſame rule with regard to Lima; for though amidſt ſuch an infinite variety of cuſtoms, there is always ſome reſemblance be-

tween thoſe of neighbouring people, yet the difference is alſo conſiderable, and no where more ſo than on this continent, where it doubtleſs ariſes from the great diſtance between the ſeveral towns; and, conſequently, I may ſay, from the different geniuſes and diſpoſitions of the people. And though Lima is the capital of the country, it will appear that it is not a model to other places, with regard to dreſs, cuſtoms, and manner of living.

The inhabitants of Lima are compoſed of whites, or Spaniards, Negroes, Indians, Meſtizos, and other caſts, proceeding from the mixture of all three.

The Spaniſh families are very numerous; Lima according to the loweſt computation, containing ſixteen or eighteen thouſand whites. Among theſe are reckoned a third or fourth part of the moſt diſtinguiſhed nobility of Peru; and many of theſe dignified with the ſtyle of ancient or modern Caſtilians, among which are no leſs than forty-five counts and marquiſes. The number of knights belonging to the ſeveral military orders is alſo very conſiderable. Beſides theſe are many families no leſs reſpectable, and living in equal ſplendour; particularly twenty-four gentlemen of large eſtates, but without titles, though moſt of them have ancient ſeats, a proof of the antiquity of their families. One of theſe traces, with undeniable certainty, his deſcent from the Yncas. The name of this family is Ampuero, ſo called from one of the Spaniſh commanders at the conqueſt of this country, who married a Coya, or daughter of the Ynca. To this family the kings of Spain have been pleaſed to grant ſeveral diſtinguiſhing honours and privileges, as marks of its great quality: and many of the moſt eminent families in the city have deſired intermarriages with it. All thoſe families live in a manner becoming their rank, having eſtates equal to their generous diſpoſitions, keeping a great number of ſlaves and other domeſtics, and thoſe who affect making the greateſt figure have coaches, while others content themſelves with calaſhes or chaiſes, which are here ſo common, that no family of any ſubſtance is without one. It muſt be owned that theſe carriages are more neceſſary here than in other cities, on account of the numberleſs droves of mules which continually paſs through Lima, and cover the ſtreets with their dung, which being ſoon dried by the ſun and the wind, turns to a nauſeous dirt, ſcarce ſupportable to thoſe who walk on foot. Theſe chaiſes, which are drawn by a mule, and guided by a driver, have only two wheels, with two ſeats oppoſite to each other, ſo that on occaſion they will hold four perſons. They are very ſlight and airy; but on account of the gildings and other decorations, ſometimes coſt eight hundred or a thouſand crowns. The number of them is ſaid to amount to five or ſix thouſand; and that of coaches is alſo very conſiderable, though not equal to the former. The funds to ſupport theſe expences, which in other parts would ruin families, are their large eſtates and plantations, civil and military employments, or commerce, which is here accounted no derogation to families of the greateſt diſtinction; but by this commerce is not to be underſtood the buying and ſelling by retail or in ſhops, every one trading proportional to his character and ſubſtance. Hence families are preſerved from thoſe diſaſters too common in Spain, where titles are frequently found without a fortune capable of ſupporting their dignity. Commerce is ſo far from being conſidered as a diſgrace at Lima, that the greateſt fortunes have been raiſed by it; thoſe on the contrary, being rather deſpiſed, who not being bleſſed with a ſufficient eſtate, through indolence, neglect to have recourſe to it for improving their fortunes. This cuſtom, or reſource, which was eſtabliſhed there without any determinate end, being introduced by a vain deſire of the firſt Spaniards to acquire wealth, is now the real ſupport of that ſplendour in which thoſe families live; and whatever repugnance theſe military gentlemen might originally have to commerce,

it was immediately removed by a royal proclamation, by which it was declared that commerce in the Indies ſhould not exclude from nobility or the military orders; a very wiſe meaſure, and of which Spain would be ſtill more ſenſible, were it extended to all its dependencies.

At Lima, as at Quito, and all Spaniſh America, ſome of the eminent families have been long ſince ſettled there, whilſt the proſperity of others is of a later date; for being the centre of the whole commerce of Peru, a greater number of Europeans reſort to it than to any other city; ſome for trade, and others from being inveſted in Spain conſiderable employments: among both are perſons of the greateſt merit; and tho many after they have finiſhed their reſpective affairs, return home, yet the major induced by the fertility of the ſoil, and the goodneſs of the climate, remain at Lima, marry young ladies remarkable equally for the gifts of fortune as thoſe of nature; thus new families are continually ſettled.

The Negroes, Mulattoes, and their deſcendants, form the greater number of the inhabitants; and of theſe are the greateſt part of the mechanics; though here the Europeans alſo follow the ſame occupations, which are not at Lima reckoned diſgraceful to them, as they are at Quito; for gain being here the univerſal paſſ purſue it by means of any trade, without regard to its being intereſt here preponderating againſt any other conſideration.

The third, and laſt claſs of inhabitants, are Indians and Meſtiz ſmall in proportion to the largeneſs of the city, and the multitudes They are employed in agriculture, in making earthenware, and brin proviſions to market, domeſtic ſervices being performed by Negroes either ſlaves or free, though generally by the former.

The uſual dreſs of the men differs very little from that worn in Spain, no tinction between the ſeveral claſſes very great; for the uſe of all ſorts of c allowed, every one wears what he can purchaſe. So that it is not uncommon Mulatto, or any other mechanic, dreſſed in a tiſſue equal to any thing that can be by a more opulent perſon. They all greatly affect fine cloaths, and it may be ſaid without exaggeration, the fineſt ſtuffs made in countries, where induſtry is always inventing ſomething new, are more generally ſeen at Lima than in any other place; vanity and oſtentation not being reſtrained by cuſtom or law. Thus the great quantities brought in the galleons and regiſter ſhips, notwithſtanding they ſell here prodigiouſly above their prime coſt in Europe, the richeſt of them are uſed as cloaths, and worn with a careleſſneſs little ſuitable to their extravagant price; but in this article the men are greatly exceeded by the women, whoſe paſſion for dreſs is ſuch as to deſerve a more particular account.

In the choice of laces, the women carry their taſte to a prodigious exceſs; nor is this an emulation confined to perſons of quality, but has ſpread through all ranks, except the loweſt claſs of Negroes. The laces are ſewed to their linen, which is of the fineſt ſort, though very little of it is ſeen, the greateſt part of it, eſpecially in ſome dreſſes, being always covered with lace; ſo that the little which appears ſeems rather for ornament than uſe. Theſe laces too muſt be all of Flanders manufacture, no woman of rank condeſcending to look on any other.

Their dreſs is very different from the European, which the cuſtom of the country alone can render excuſable; indeed to Spaniards at their firſt coming over it appears extremely indecent. Their dreſs conſiſts of a pair of ſhoes, a ſhift, a petticoat of dimity, an open petticoat, and a jacket, which in ſummer is of linen, in winter of ſtuff. To

this, ſome add a mantelette, that the former may hang looſe. The difference between this dreſs and that worn at Quito, though conſiſting of the ſame pieces, is, that at Lima it is much ſhorter, the petticoat, which is uſually tied below the waiſt, not reaching lower than the calf of the leg, from whence, nearly to the ancle, hangs a border of very fine lace, ſewed to the bottom of the under petticoat; through which the ends of their garters are diſcovered, embroidered with gold or ſilver, and ſometimes ſet with pearls; but the latter is not common. The upper petticoat, which is of velvet, or ſome rich f, is fringed all round, and not leſs crowded with ornaments than thoſe deſcribed in firſt volume of this work. But be the ornaments what they will, whether of fringe, , or ribands, they are always exquiſitely fine. The ſhift ſleeves, which are a yard a half in length, and two yards in width, when worn for ornament, are covered th rolls of lace, variegated in ſuch a manner as to render the whole truly elegant. ver the ſhift is worn the jacket, the ſleeves of which are exceſſively large, of a circular gure, and conſiſt of rows of lace, or ſlips of cambric or lawn, with lace diſpoſed betwixt ach, as are alſo the ſhift ſleeves, even of thoſe who do not affect extraordinary ornament. The body of the jacket is tied on the ſhoulders with ribands faſtened to the and the round ſleeves of it being tucked up to the ſhoulders, are with thoſe of the ſhift, as to form what may be termed four be not buttoned or claſped before, it is agreeably faſtened on indeed the whole dreſs makes a moſt elegant figure. They who ſten it with claſps, but wear over it the looſe jacket already deſcribed. hey have a kind of veil, the ſtuff and faſhion of which is like that of body of the veſt, of the fineſt cambric, or lawn, richly laced; but in eil worn in their houſes is of bays; when they go abroad full dreſſed, it like the ſleeves. They alſo uſe brown bays, finely laced and fringed, and with ſlips of black velvet. Over the petticoat is an apron of the ſame ſtuff leeves of the jacket, hanging down to the bottom of it. From hence ſome idea be formed of the expence of a dreſs, where the much greater part of the ſtuff nerely for ornament; nor will it appear ſtrange, that the marriage ſhift ſhould coſt thouſand crowns, and ſometimes more.

One particular on which the women here extremely value themſelves, is the ſize of their feet, a ſmall foot being eſteemed one of the chief beauties; and this is the principal fault they find with the Spaniſh ladies, who have much larger feet than thoſe of Lima. From their infancy they are accuſtomed to wear ſtrait ſhoes, that their feet may not grow beyond the ſize which they eſteem beautiful; ſome of them do not exceed five inches and a half, or ſix inches in length, and in women of a ſmall ſtature they are ſtill leſs. Their ſhoes have little or no ſole, one piece of cordovan ſerving both for that and the upper leather, and of an equal breadth and roundneſs at the toe and heel, ſo as to form a ſort of long figure of 8: but the foot not complying with the figure, brings it to a greater regularity. Theſe ſhoes are always faſtened with diamond buckles, or ſomething very brilliant in proportion to the ability of the wearer, being worn leſs for uſe than ornament; for the ſhoes are made in ſuch a manner, that they never looſen of themſelves, nor do the buckles hinder their being taken off. It is unuſual to ſet theſe buckles with pearls, a particular to be accounted for only from their being ſo laviſh of them in the other ornaments of dreſs, as to conſider them of too little value. The ſhoemakers, who are no ſtrangers to the foible of the ſex, take great care to make them in a manner very little calculated for ſervice. The uſual price is three half-crowns a pair; thoſe embroidered with gold or ſilver coſt from eight to ten crowns. The

latter

latter however, are but little worn, the encumbrance of embroidery being ſuited rather to enlarge than diminiſh the appearance of a ſmall foot. *

They are fond of white ſilk ſtockings, made extremely thin, that the leg may appear the more ſhapely; the greateſt part of which is expoſed to view. Theſe trifles often afford very ſprightly ſallies of wit in their animadverſions on the dreſs of others.

Hitherto we have conſidered only the more common dreſs of theſe ladies; the reader will conceive a ſtill higher idea of their magnificence, when he is informed of the ornaments with which they are decorated in their viſits, and upon public occaſions. We ſhall begin with their manner of dreſſing the hair, which being naturally black, and capable of reaching below their waiſts, they diſpoſe in ſuch a manner as to appear perfectly graceful. They tie it up behind in ſix braided locks, through which a golden bodkin, a little bent, is inſerted, and having a cluſter of diamonds at each end. On this the locks are ſuſpended ſo as to touch the ſhoulder. On the front and upper part of the head they wear diamond aigrets, and the hair is formed into little curls, hanging from the forehead to the middle of the ear, with a large black patch of velvet on each temple. Their ear-rings are of brilliants, intermixed with tufts of black ſilk, covered with pearls, reſembling thoſe already deſcribed. Theſe are ſo common an ornament, that beſides their necklaces, they alſo wear about their neck roſaries, the beads of which are of pearls, either ſeparate or ſet in cluſters to the ſize of a large filbert; and thoſe which form the croſs are ſtill larger.

Beſides diamong rings, necklaces, girdles, and bracelets, all very curious both with regard to water and ſize, many ladies wear other jewels ſet in gold, or for ſingularity's ſake, in tombago. Laſtly, from their girdle before is ſuſpended a large round jewel enriched with diamonds: much more ſuperb than their bracelets, or other ornaments. A lady covered with the moſt expenſive lace inſtead of linen, and glittering from head to foot with jewels, is ſuppoſed to be dreſſed at the expence of not leſs than thirty or forty thouſand crowns; a ſplendour ſtill the more aſtoniſhing, as it is ſo very common.

A fondneſs for expence in theſe people, does not confine itſelf to rich apparel; it appears no leſs in the ſtrange neglect, and the ſmall value, they ſeem to ſet upon them, by wearing them in a manner the moſt careleſs, and by that means bringing upon themſelves freſh expences in repairing the old or purchaſing new jewels; eſpecially pearls, on account of their fragility.

The moſt common of the two kinds of dreſſes worn when they go abroad, is the veil and long petticoat; the other is a round petticoat and mantelette: the former for church, the latter for taking the air, and diverſions; but both in the prevailing taſte for expence, being richly embroidered with ſilver or gold.

The long petticoat is particularly worn on Holy Thurſday; as on that day they viſit the churches, attended by two or three female Negro or Mulatto ſlaves, dreſſed in an uniform like pages. †

With regard to the perſons of the women of Lima, they are in general, of a middling ſtature, handſome, genteel, and of very fair complexions without the help of art; the

* All thoſe who can afford them wear ſhoes made in the European manner, but with heels of wrought ſilver; the tinkling of which, added to the ſmallneſs of their feet, has really, at leaſt to the weather-beaten ſealor, ſomething captivating. A.

† The lower claſs of women, whoſe whole ſtock of apparel ſeldom conſiſts of more than two camiſas (ſhifts) and a ſaya (petticoat), wear bracelets, roſaries, and ſmall golden images about their necks and arms, to the intrinſic value of fifty or ſixty crowns, and to them of much greater value, having coſt near that ſum in benediction from the prieſts, without which the images, &c. would be eſteemed pollutions. A.

beauty

beauty of their hair has been already mentioned, but they have uſually an enchanting luſtre and dignity in their eyes.

Theſe perſonal charms are heightened by thoſe of the mind; clear and comprehenſive intellects: an eaſineſs of behaviour, ſo well tempered, that whilſt it invites love; it commands reſpect: the charms of their converſation are beyond expreſſion; their ideas juſt, their expreſſions pure, their manner inimitably graceful. Theſe are the allurements by which great numbers of Europeans, forgetting the fair proſpects they have at home, are induced to marry and ſettle here.

One material objection againſt them is, that being too well acquainted with their own excellences, they are tainted with a haughtineſs, which will ſcarce ſtoop to the will of their huſbands. Yet by their addreſs and inſinuating compliance, they ſo far gain the aſcendancy over them, as to be left to their own diſcretion. There may, indeed, a few exceptions be found; but theſe poſſibly are rather owing to a want of capacity. Another objection may be made to their being more expenſive than other ladies; but this ariſes from the exorbitant price of ſtuffs, laces, and other commodities, in this country. And with regard to the independence they affect, it is no more than a cuſtom long eſtabliſhed in the country. To which may be added, that being natives, and their huſbands generally foreigners, it is very natural, that the latter ſhould not enjoy all that authority, founded on laws ſuperior to cuſtom; and hence this error remains uncorrected. The huſbands conform to the manners of the country, as their character is not in the leaſt affected thereby; and this complaiſance is rewarded by the diſcretion and affection of their ladies, which are not to be paralleled in any other part of the world.

They are ſo exceſſively fond of perfumes, that they always carry ambergriſe about them; putting it behind their ears, and other parts of the body; and alſo in ſeveral parts of their clothes. Not content with the natural fragrancy of flowers, which are alſo a favourite ornament, they ſcatter perfumes even on their noſegays. The moſt beautiful flowers they place in their hair, and others, which are moſt valuable for their odour, they ſtick in their ſleeves; the effluvia therefore iſſuing from theſe ladies, the reader will conceive to reach to no inconſiderable diſtance. The flower moſt in uſe is the chirimoya, of mean appearance, but of exquiſite ſcent.

To this paſſion for flowers it is owing, that the grand ſquare, every morning, on account of the vaſt quantity of beautiful vegetables brought thither, has the appearance of a ſpacious garden. The ſmell and the ſight are there ſufficiently gratified. The ladies reſort thither in their calaſhes, and if their fancy happens to be pleaſed, they make but little difficulty with regard to the price. A ſtranger has the pleaſure of ſeeing aſſembled there not only the ladies, but every body of rank whoſe health and avocations will admit of it.

The lower claſſes of women, even to the very Negroes, affect, according to their abilities, to imitate their betters, not only in the faſhion of their dreſs, but alſo in the richneſs of it. None here are ſeen without ſhoes as at Quito, but they are made of ſo ſmall a ſize, in order to diminiſh the natural bigneſs of the feet, that they muſt give infinite uneaſineſs in the wearing. A deſire of being diſtinguiſhed by an elegant dreſs is univerſal. Their linen is always ſtarched to a great degree, in order to diſplay the coſtly patterns of their laces. After this univerſal paſſion, their next care, and indeed a much more commendable one, is cleanlineſs; of which the uncommon neatneſs of their houſes are ſufficient inſtances.

They are naturally gay, ſprightly, and jocoſe, without levity; remarkably fond of muſic; ſo that even amongſt the loweſt you are entertained with pleaſing and agreeable ſongs;

ſongs; for the gratification of this paſſion, they have in general good voices, and ſome of them are heard with admiration. They are very fond of balls, where they diſtinguiſh themſelves equally by the gracefulneſs and agility of their motions. In fine, the reigning paſſions of the fair at Lima, are ſhew, mirth, and feſtivity.

The natural vivacity and penetration of the inhabitants of Lima, both men and women, are greatly improved by converſing with perſons of learning reſorting thither from Spain. The cuſtom of forming ſmall aſſemblies, has alſo a great tendency to improve their minds, and give them a ready and happy manner of expreſſion, from an emulation to diſtinguiſh themſelves in theſe engaging accompliſhments.

Though the natives have too great a ſhare of pride, they are not wanting in docility when proper methods are taken. They inſtantly ſhew their reluctance to obey a command given with haughtineſs; but, when delivered with mildneſs and affability, equally obſequious and ſubmiſſive. They are charmed with gentleneſs of manners; and a few inſtances of kindneſs make a laſting impreſſion on their minds. They are remarkably brave, and of ſuch unblemiſhed honour, as never to diſſemble an affront received, or give one to others; ſo that they live together in a cheerful and ſocial manner. The Mulattoes being leſs civilized, and having but ſlender notions of the turpitude of vice, and the importance of virtue, are haughty, turbulent, and quarrelſome. Yet the miſchievous conſequences of theſe vices are leſs common, than might naturally be expected in ſuch a populous city.

The manners and diſpoſitions of the nobility, correſpond with their rank and fortune. Courteſy ſhines in all their actions, and their complaiſance to ſtrangers is without limits. The reception they give them, is equally free from flattery and a haughty reſerve; ſo that all the Europeans, whether they viſit them out of curioſity or from commercial motives, are charmed with their probity, politeneſs, candour, and magnificence.

CHAP. VI. — *Of the Climate of the City of Lima, and the whole Country of Valles: and the Diviſions of the Seaſons.*

THE temperature of the air of Lima, and its alterations, would be greatly injured by an inference drawn from what is felt in the ſame degree of north latitude; as Lima would from hence be concluded another Carthagena; the latitude of both cities, one in the northern and the other in the ſouthern hemiſphere, differing but very little; whereas in fact it is quite the reverſe. For as that of Carthagena is hot to a degree of inconvenience, this of Lima is perfectly agreeable. And though the difference of the four ſeaſons are ſenſible, all of them are moderate, and none of them troubleſome.

Spring begins towards the cloſe of the year, that is, towards the end of November, or beginning of December. But this is to be underſtood only of the heavens, as then the vapours which filled the atmoſphere during the winter ſubſide, the ſun to the great joy of the inhabitants again appears, and the country now begins to revive, which during the abſence of his rays had continued in a ſtate of languor. This is ſucceeded by ſummer, which, though hot from the perpendicular direction of the ſun's rays, is far from being inſupportable; the heat, which would indeed otherwiſe be exceſſive, being moderated by the ſouth winds, which at this ſeaſon always blow, though with no great force. At the latter end of June, or the beginning of July, the winter begins, and continues till November or December, the autumn intervening between

between both. About this time the ſouth winds begin to blow ſtronger, and bring the cold with them; not indeed equal to that in countries where ſnow and ice are known, but ſo keen that the light dreſſes are laid by, and cloth or other warm ſtuffs worn.

There are two cauſes of the cold felt in this country, and nature, wiſe in all her ways, provides others which produce the ſame effect at Quito. The firſt cauſe of cold at Lima is the winds, which paſſing over the frozen climes of the ſouth pole, bring hither part of the frigorific particles from thoſe gelid regions; but as a ſufficient quantity of theſe could not be brought over ſuch an immenſe ſpace as lies between the frozen and torrid zones of its hemiſphere, nature has provided another expedient; during the winter, the earth is covered with ſo thick a fog, as totally to intercept the rays of the ſun; and the winds, by being propagated under the ſhelter of this fog, retain the particles they contracted in the frozen zone. Nor is this fog confined to the country of Lima: it extends, with the ſame denſity, northward through all the country of Valles, at the ſame time filling the atmoſphere of the ſea; as will be ſhewn hereafter.

This fog ſeldom fails daily to cover the earth, with a denſity that obſcures objects at any diſtance. About ten or eleven it begins to riſe, but without being totally diſperſed, though it is then no impediment to the ſight, intercepting only the rays of the ſun by day, and by night thoſe of the ſtars, the ſky being continually covered whatever height the vapours float in the atmoſphere. Sometimes, indeed, they are ſo far diſperſed as to admit of ſeeing the diſk of the ſun, but ſtill precluding the heat of his rays.

It is not unworthy obſervation on this head, that at the diſtance of only two or three leagues, the vapours are much more diſſipated from noon to evening than in the city, the ſun fully appearing ſo as to moderate the coldneſs of the air. Alſo at Callao, which is only two leagues and a half from Lima, the winter is much more mild, and the air clearer, during that ſeaſon; for the days at Lima are very melancholy and diſagreeable, not only on account of the darkneſs, but frequently during the whole day the vapours continue in the ſame degree of denſity and poſition, without breaking, or being elevated above the earth.

It is in this ſeaſon only that the vapours diſſolve into a very ſmall miſt or dew, which they call garua, and thus every where equally moiſtens the earth; by which means all thoſe hills, which during the other part of the year offer nothing to the ſight but rocks and waſtes, are cloathed with verdure, and enamelled with flowers of the moſt beautiful colours, to the great joy of the inhabitants, who, as ſoon as the ſeverity of winter is abated, reſort into the country, which exhibits ſo elegant an appearance.* Theſe garuas or dews never fall in quantities ſufficient to damage the roads, or incommode the traveller; a very thin ſtuff will not ſoon be wet through; but the continuance of the miſts during the whole winter, without being exhaled by the ſun, renders the moſt arid and barren parts fertile. For the ſame reaſon they turn the diſagreeable duſt in the ſtreets of Lima into a mud, which is rather more offenſive.

* I cannot underſtand what the Author means here by "ſeverity of the winter," unleſs he would ſo denominate the moſt pleaſant time of the year; for during this time, while the ſun's rays are cut off by the miſts, there is a continual ſpring: and plants and herbs recruit their ſtrength to endure the perpendicular rays of the ſun, which break through the miſts about the middle of November. A.

The winds which prevail during the winter, are nearly, though not exactly, ſouth; ſometimes ſhifting a little to the ſouth-eaſt between which and the ſouth they always blow.* This we obſerved to have conſtantly happened during the two winters we ſpent in this country, one at Lima, and the other at Callao; the former in the year 1742, and the latter in 1743. The firſt was one of the moſt ſevere that had been felt, and the cold general in all that part of America to Cape Horn. In Chili, Baldivia, and Chiloe, the cold was proportionable to the latitudes; and at Lima it occaſioned conſtipations and fluxions, which ſwept away ſuch numbers that it ſeemed to reſemble a peſtilence. And though diſorders of this kind are very common in the winter ſeaſon, they are rarely attended with the danger which then accompanied them.

The extraordinary ſingularity obſerved in the kingdom of Peru, namely, that it never rains; or to ſpeak more properly, that the clouds do not convert themſelves into formal ſhowers, has induced many naturaliſts to enquire into the cauſe: but in their ſolutions of this difficulty they have varied, and invented ſeveral hypotheſes to account for ſo ſtrange an effect. Some attribute it to the conſtancy of the ſouth winds, concluding, that as they are inceſſant, they propel the vapours riſing from the ſea, to the ſame point; and thus by never reſting in any part, as no oppoſite winds blow during the whole year to check their courſe, there is not time ſufficient for the miſts to collect themſelves, and, by an increaſe of gravity, to deſcend in the manner of rain. Others have attributed it to the natural cold brought by the ſouth winds, which continue the atmoſphere in a certain degree of heat during the whole year, and thus increaſe the magnitude of the particles of the air, which with the nitrous effluvia acquired in its paſſage over the ſurface of the ſea, together with thoſe of the ſeveral minerals with which this country abounds, leſſen its velocity, and conſequently its power of uniting the vapours ſo as to form drops whoſe gravity is greater than that of the air. To this we may add, that the rays of the ſun not exerting a force ſufficient for uniting and putting them in motion, the heat being greatly leſſened by the coldneſs of the wind, the fog cannot be converted into drops of rain. For while the weight of the cloud does not exceed that of the air, by which it is ſupported, it cannot precipitate.

I ſhall not cenſure this, or any other hypotheſis, formed for explaining the above phenomenon, not being certain that I have myſelf diſcovered the true cauſe; I ſhall however give the reader my thoughts, and leave them to the diſcuſſion of philoſophers. In order to this I ſhall lay down ſome preliminary principles, which may ſerve as a foundation to thoſe who ſhall apply themſelves to diſcover the true cauſe of this phenomenon, with ſome inſtructions for judging of the ſeveral hypotheſes that have been formed on this extraordinary ſubject.

I. It is to be ſuppoſed, that throughout the whole country of Valles, no other winds are known during the whole year, than the ſoutherly, that is, between the ſouth and ſouth-eaſt, and this not only on the land, but alſo to a certain diſtance at ſea; it evidently appearing that the winds are limited between the ſouth and ſouth-eaſt. It is therefore very ſtrange that ſome writers ſhould aſſert that they are confined between the ſouth and ſouth-weſt, as this is abſolutely falſe. There are indeed intervals when theſe winds are ſcarcely felt, and an air, though extremely ſmall, ſeems to come from the north, and which forms the fog. 2. In winter the ſouth wind blows harder than in ſummer, eſpecially near the ſurface of the earth. 3. Though no formal rain is ever

* The wind here blows ſouth by eaſt to ſouth by weſt, but generally about ſouth-ſouth-eaſt from June to December. A.

known in the country of Valles, there are wetting fogs called garuas, which continue the greateſt part of the winter; but are never ſeen in ſummer. 4. When the garuas fall, it is obſerved that the clouds, miſt, or vapours, which riſe from the earth, remain almoſt contiguous to its ſurface; and the ſame fog which is converted into a garua, begins by a moiſt air, till the humidity gradually increaſing to its greateſt condenſation, the ſmall drops which fall are eaſily diſtinguiſhable. This is ſo natural, that it is known in all other countries ſubject to any degree of cold, and, conſequently, not to be wondered at in this.

I give the name of cloud, miſt, or vapours, to that which produces the garua or ſmall rain; for though there may be ſome accidental diſtinctions between theſe three kinds, they are not ſuch as cauſe any material difference: the fog being only the vapour condenſed more than when it firſt roſe; and the cloud only a fog elevated to a greater height, and ſtill more condenſed than the former: ſo that in reality they may all be conſidered as one and the ſame thing, differing only in degrees of denſity, and therefore it is of little importance whatever name it is called by.

5. The rays of the ſun during the ſummer, cauſe a prodigious heat all over Valles, and the more ſo as they are received upon a ſandy ſoil, whence they are ſtrongly reverberated, the winds being at the ſame time very weak. Hence it appears, that the ſecond hypotheſis above related, is not founded on truth; for if the force or agitation of the ſouth winds be the cauſe which hinders the vapours from riſing to the height neceſſary for forming rain, this cauſe generally ceaſing in the ſummer, the rain might be expected to deſcend; whereas quite the reverſe happens, the garuas being then much leſs common. 6. Particular times have been known when the nature of the country departing as it were from its uſual courſe, formal ſhowers have fallen, as we have already mentioned (chap. i.) in deſcribing the towns of Chocope, Truxillo, Tumbez, and other places; but with this ſingularity, that the winds continued at ſouth, and blew much ſtronger during the time of the rain, than is uſual either in winter or ſummer.

Theſe ſix preliminary principles are ſo common to this climate, that they may be applied to all the places mentioned in this chapter; and are the only guides that muſt be followed in determining the true cauſe why it does not rain in Peru as in Europe, or, more properly, as is common in the torrid zone.

It will readily be granted, that the wind blows more ſtrongly in ſome regions of the atmoſphere than in others, experience itſelf having ſufficiently proved this to be fact; as on high mountains, along whoſe ſummits a ſtrong wind is felt, when at the foot hardly any can be perceived; at leaſt, we found this to be the caſe in all the mountains of the Cordilleras, one of the greateſt inconveniences to us being the ſtrength of the wind. And, indeed, this is every where ſo common, that any perſon may be convinced of it by only aſcending a high tower, then he will ſoon perceive the difference between the ſtrength of the wind at the top and at the bottom. I am not ignorant that ſome have endeavoured to prove, that on the land this proceeds from the inequalities of its ſurface, which hinder the winds from blowing in the plains or low countries with that force which is felt on eminences; but the ſame thing happening at ſea, as experience has abundantly proved, it appears beyond diſpute, that the ſurface is not the place where the wind exerts its greateſt force. This being granted, it may be confidently aſſerted, that the ſouth winds blow with the greateſt force in a portion of the atmoſphere at ſome diſtance from the earth; but not generally higher than that in which the rain is formed; or where the aqueous particles unite ſo as to form drops of any ſenſible gravity or magnitude. In this country, therefore, the clouds or vapours elevated

above this ſpace, that is, thoſe which have the greateſt degree of altitude, move with a much leſs velocity than the winds under them. Nor is it uncommon in other climates, beſides that of Valles, for theſe clouds to move in a direction contrary to the more denſe ones below it. Thus it appears to me, that without the danger of advancing irregular ſuppoſitions, the ſpace of the atmoſphere, where the winds generally blow with the greateſt force, is that where the large drops, commonly called rain, are formed.

Now, in order to explain the ſingularity of this remarkable phenomenon, I conceive that, in ſummer, when the atmoſphere is moſt rarefied, the ſun, by the influence of his rays, proportionally elevates the vapours of the earth, and gives them a greater degree of rarefaction; for his beams being then in a more perpendicular direction to the earth, they have the power of raiſing them to a greater height. Theſe vapours, on their touching the lower part of the atmoſphere, where the winds blow with the greateſt force, are carried away before they can riſe to the height required for uniting into drops, and, conſequently, no rain can be formed. For, as the vapours iſſue from the earth, they are wafted along the lower region of the atmoſphere, without any ſtop; and the winds blowing always from the ſouth, and the vapours being rarefied proportionally to the heat of the ſun, its too great activity hinders them from uniting. Hence, in ſummer, the atmoſphere is clear, or free from vapours.

In winter, the rays of the ſun being leſs perpendicular to the ſurface of the earth, the atmoſphere becomes conſiderably more condenſed, but the winds from the ſouth much more ſo, as being loaded with the frigorific particles from the frozen zone, which particles it communicates to the vapours as they iſſue from the earth, and, conſequently, renders them much more condenſed than in ſummer: hence they are hindered from riſing with the ſame celerity as before.

To theſe muſt be added two other reaſons; one, that the rays of the ſun for want of ſufficient activity diſſipates the vapours leſs, ſo that they riſe much ſlower. The other, that the region where the wind has its greateſt velocity being, in this ſeaſon, near the earth, will not admit of their riſing to any height; and thus they continue contiguous to its ſurface, where they ſtill follow the ſame direction, and form the moiſt fog then felt: and having leſs ſpace to dilate themſelves than at a greater height, they, conſequently, ſooner come into contact, and when ſufficiently condenſed, deſcend in a garua.

In the middle of the day the garna ceaſes, being then diſperſed, which proceeds from the ſun's rarefying the atmoſphere, whence the vapours aſcend and remain ſuſpended at a greater height, and thus they are rendered more tenuious; and being raiſed to a region where they have more room to dilate, they are ſo far diſperſed as to become imperceptible.

After all, it muſt be owned, that both in ſummer and winter, ſome vapours muſt ſurmount the difficulty of the wind in that region where its velocity is greateſt, and, getting above it, aſcend to a greater height; though not indeed in the very part where they firſt reached this current of wind, but at ſome diſtance from it: ſo that theſe vapours are to be conſidered, on one hand, as yielding to the current of the air, and, on the other, as aſcending in proportion to the rarefaction they have received from the rays of the ſun. Hence it follows, that theſe vapours cannot be thoſe which are moſt condenſed, as the difficulty of riſing is always proportional to the degree of condenſation; and, at the ſame time, their magnitude would render them more ſuſceptible of the impulſe of the wind. So that theſe conſequently being the moſt ſubtile or tenuious, on having paſſed that region, the celerity with which they were before carried upwards is

decreaſed, and great numbers of them being united, form that lofty miſt which is ſeen after the cloud is totally diſſipated. This miſt cannot be converted into rain; for, having paſſed above the region proper for its formation, all the parts become congealed, and their weight can never be increaſed ſufficiently to overcome the reſiſtance of the air which ſupports them; for the quantity of thoſe which have overcome this obſtacle being inconſiderable, they cannot be united with a ſufficient quantity of others to withſtand the continual diſſipation occaſioned by the action of the rays of the ſun. Nor can they deſcend in either ſnow or hail, as might be expected from their preſent ſtate. Beſides following always, though with leſs velocity, the current of the wind, any ſuch concretion of them as to form a thick cloud is prevented: for, as we have already obſerved, theſe miſts are ſo tenuious, as to afford in the day-time a confuſed view of the diſk of the ſun, and of the ſtars in the night.

In order to render the premiſes agreeable to obſervation, one difficulty ſtill remains, namely, that theſe lofty miſts are ſeen only in winter, and not in ſummer. But this, in my opinion, muſt naturally be the conſequence; for, beſides the general reaſon, that the ſtronger influence of the rays of the ſun diſperſes them, it proceeds from the increaſe of the force of the winds during the winter, in a region nearer the earth than in ſummer; and the nearer the lower part of this region is to the ſurface of the earth, the nearer alſo will be the upper part; while, on the contrary, in the ſummer, the higher the lower part of this current of air is, the higher will be alſo its upper part; and. as we muſt ſuppoſe, with all philoſophers, that the vapours of the earth can aſcend only to that height, where the gravity of the particles of the vapours are equal to thoſe of the air; and the rapidity of the wind extending in ſummer to theſe limits, they are conſequently involved in its violent impulſe; and thence there cannot be ſuch a multitude of conglomerations as to form the miſt ſo common in winter; for the winds in this ſeaſon ſtrongly blowing through a region nearer the earth, the agitation in the upper parts is proportionally leſs. And this current of air being below the region to which vapours can aſcend, the ſpace intercepted between the upper part of this current and the part to which vapours riſe, becomes filled with them. All this ſeems natural, and is confirmed by experience; for, in winter, the ſouth winds are ſtronger on the land than in ſummer. But as a further proof may be thought neceſſary, I have added the following:

It has been ſaid that, in the town of Chocope, two very hard and continual rains have happened; and that the ſame thing is more frequently ſeen at Tumbez, and other towns of thoſe parts, after ſome years of continual drought, which ſeems ſtrange; for that being in the country of Valles, and not at all different from Lima, no rain would naturally be expected there. Two cauſes for this, however, have occurred to me, one of them flowing from the other. I ſhall begin with the firſt as productive of the ſecond.

From what has been ſaid, it may be inferred, that in a country or climate, where one and the ſame wind perpetually prevails, there can be no formal rain; and, in order to form it, either the wind muſt entirely ceaſe, or an oppoſite wind muſt ariſe, which, by checking the courſe of the vapours, brings them into contact with thoſe lately exhaled from the earth, and cauſes them to condenſe in proportion as they riſe by the attraction of the ſun, till being rendered heavier than the air by which they were ſupported, they deſcend in drops of water.

On reconſidering the circumſtances of what happened at Chocope, it will appear, that during the whole day, the ſky was clear, and that it was not before five in the evening that the rain began, and with it the violence of the wind. It ſhould alſo be obſerved,

that

that in the time of the briſas in thoſe climates where they are periodical, they blow ſtrongeſt between the ſetting and riſing of the ſun; and this happening in September and the following months, forms the ſummer in Valles, when they enjoy clear days and a lucid atmoſphere. This was the caſe at Chocope at the time of that rain; for, though the inhabitants did not preciſely mention the ſeaſon in which that event happened, yet the ſeveral particulars related, eſpecially that the ſouth winds then prevailed with an uncommon force, ſufficiently indicate that it was in the ſummer; as this would not have been at all remarkable in winter, when they are very variable and ſometimes ſtormy. It may therefore be ſafely concluded, that theſe events happened during the ſummer; and, by way of corollary, that the briſas being ſtronger than uſual, and advancing ſo far on the continent as even to reach the ſouth winds, they were overpowered by them, and ſhifted their point; but the ſucceeding ſouth winds rendering it impoſſible to return in the ſame place, they left their former region, and blew in a current nearer the earth. By which means, the vapours which had been exhaling during the whole day, after being carried by the ſtrongeſt current of wind to a certain diſtance, aſcended to the region where the briſas prevailed; and being there repelled by them, had time to condenſe; for being within that region where the rain is formed, or where many imperceptible drops compoſe one of a large magnitude and gravity, and being more minutely divided by the influence of the ſun, they continued to aſcend, till that power ceaſing by the ſetting of the ſun, they again condenſed, and their weight becoming too heavy to be ſupported in the air, they deſcended in rain, which was the more violent, as the vapours were ſtrongly repulſed by the briſas. At the dawn, theſe winds, as uſual, began to decreaſe, and the rain gradually leſſened. The ſouth winds blew all day as before; and there being then in the atmoſphere no other winds to oppoſe them, they carried with them the vapours as they exhaled, and the atmoſphere continued clear and ſerene.

This happened at Chocope, ſituated at a much greater diſtance from the parts to which the briſas extend than Tumbez, Piura, Sechura, and other towns where this is more frequent, as being nearer the equinoctial: notwithſtanding, no briſas or north winds are felt in that part of the atmoſphere near the ſurface of the earth. So that it is probable, or rather indeed evident from experience, that the north winds at the time they prevail, more eaſily reach to the countries neareſt the equinoctial, than to thoſe at a greater diſtance, though not ſo as to be felt in the atmoſphere near the earth, but in a more elevated region. Conſequently, it is natural for rains to be more frequent in the former than in the latter, where theſe winds very ſeldom reach, whether in that part of the atmoſphere contiguous to the earth, or another, which being more diſtant from it they blow there more violently.

I at firſt declared againſt any poſitive aſſertion, that the opinion I have now laid before the reader is founded on ſuch undoubted phyſical principles, that no other can be advanced more conformable to phænomena; it being difficult immediately to fix on cauſes which agreeing with all circumſtances, leaves the mind entirely ſatisfied: and as all within the reach of human perſpicuity cannot be accommodated to every particular, as entire conviction requires, let it ſuffice that I have here delivered my thoughts; leaving the naturaliſts at full liberty to inveſtigate the true cauſe, and when diſcovered, to reject my hypotheſis. *

* A more probable conjecture is, that the vapours which ariſe in the great South Sea, and are brought into this neighbourhood by the ſouth wind (where they would naturally condenſe into clouds and fall in ſhowers), are attracted by the Cordilleras, whoſe tops are generally enveloped in clouds frightful to behold, which ſpend themſelves in tremendous tempeſts, even ſhaking the foundations of thoſe lofty mountains. A.

As rain is ſeldom or never ſeen at Lima, ſo that place is alſo equally free from tempeſts; that ſo thoſe who have neither viſited the mountains nor travelled into other parts, as Guayaquil or Chili, are abſolute ſtrangers to thunder and lightning; nothing of that kind being known here. Accordingly, the inhabitants are extremely terrified when they firſt hear the former or ſee the latter. But it is very remarkable, that what is here entirely unknown, ſhould be ſo common at thirty leagues diſtant, or even leſs, to the eaſt of Lima; it being no farther to the mountains, where violent rains and tempeſts are as frequent as at Quito. The winds, though ſettled in the above-mentioned points, are ſubject to variations, but almoſt imperceptible, as we ſhall explain. They are alſo very gentle, and even in the ſevereſt winters, never known to do any damage by their violence; ſo that if this country was free from other inconveniences and evils, its inhabitants could have nothing to deſire, in order to render their lives truly agreeable. But with theſe ſignal advantages, nature has blended inconveniences, which greatly diminiſh their value, and reduce this country even below thoſe on which nature has not beſtowed ſuch great riches and fertility.

It has been obſerved, that the winds generally prevailing in Valles, throughout the whole year, comes from the ſouth; but this admits of ſome exceptions, which, without any eſſential alteration, implies that ſometimes the winds come from the north, but ſo very faint, as ſcarcely to move the vanes of the ſhips, and conſiſt only of a very weak agitation of the air, juſt ſufficient to indicate that the wind is changed from the ſouth. This change is regularly in winter, and with it the fog immediately begins, which in ſome meaſure ſeems to coincide with what has been offered with regard to the reaſon why ſhowers are unknown at Lima. This breath of wind is ſo particular, that from the very inſtant it begins, and before the wind is condenſed, the inhabitants are unhappily ſenſible of it by violent head-aches, ſo as eaſily to know what ſort of weather is coming on before they ſtir out of their chambers.

CHAP. VII. — *Inconveniencies, Diſtempers, and Evils, to which the City of Lima is ſubject; particularly Earthquakes.*

ONE of the inconveniences of Lima, during the ſummer, is that of being tormented with fleas and bugs, from which the utmoſt care is not ſufficient to free the inhabitants. Their prodigious increaſe is partly owing to the duſt of that dung, with which the ſtreets are continually covered; and partly to the flatneſs of the roofs, where the ſame duſt, wafted thither by the winds, produce theſe troubleſome inſects, which are continually dropping through the crevices of the boards into the apartments, and by that means render it impoſſible for the inhabitants, notwithſtanding all their pains, to keep their houſes free from them. The moſchitos are very troubleſome, but much leſs ſo than the former.

The next, and indeed a moſt dreadful circumſtance, is that of earthquakes, to which this country is ſo ſubject, that the inhabitants are under continual apprehenſions of being, from their ſuddenneſs and violence, buried in the ruins of their own houſes. Several deplorable inſtances of this kind have happened in this unfortunate city; and lately proved the total deſtruction of all its buildings. Theſe terrible concuſſions of nature are not regular, either with regard to their continuance or violence. But the interval between them is never of a length ſufficient to obliterate the remembrance of them. In the year 1742, I had the curioſity to obſerve the diſtance of time between thoſe which happened ſucceſſively for a certain ſpace. 1. On the 9th of May, at three quarters

quarters after nine in the morning. 2. The 19th of the ſame month, at midnight, 3. The 27th, at thirty-five minutes after three in the evening. 4. The 12th of June, at three quarters paſt five in the morning. 5. The 14th of October, at nine at night; all which I carefully noted. And it muſt be obſerved, that theſe concuſſions were the moſt conſiderable, and laſted near a minute; particularly that of the 27th of May, which continued near two minutes, beginning with one violent ſhock, and gradually terminating in tremulous motions. Between theſe above noted were ſeveral others, which I omitted, as being neither ſo laſting nor violent.

Theſe earthquakes, though ſo ſudden, have their preſages, one of the principal of which is, a rumbling noiſe in the bowels of the earth, about a minute before the ſhocks are felt; and this noiſe does not continue in the place where it was firſt produced, but ſeems to pervade all the adjacent ſubterraneous parts. This is followed by diſmal howlings of the dogs, which ſeem to have the firſt perception of the approaching danger. The beaſts of burden paſſing the ſtreets, ſtop, and, by a natural inſtinct, ſpread open their legs, the better to ſecure themſelves from falling. On theſe portents the terrified inhabitants fly from their houſes into the ſtreets with ſuch precipitation, that if it happens inthe night, they appear quite naked; fear and the urgency of the danger, baniſhing at once all ſenſe of decency. Thus the ſtreets exhibit ſuch odd and ſingular figures, that might even afford matter for diverſion, were it poſſible in ſo terrible a moment. The ſudden concourſe is accompanied with the cries of children waked out of their ſleep, blended with the lamentations of the women, whoſe agonizing prayers to the ſaints increaſe the common fear and confuſion: the men alſo are too much affected to refrain from giving vent to their terror; ſo that the whole city exhibits one dreadful ſcene of conſternation and horror. Nor does this end with the ſhock, none venturing to return to their houſes through fear of a repetition, which frequently demoliſhes thoſe buildings which had been weakened by the firſt.

My attention to ſet down the exact time of the above-mentioned ſhocks, taught me, that they happen indifferently at half-ebb or half-flood; but never at high or low water: which ſufficiently confutes what ſome have confidently advanced, namely, that earthquakes always happen during the ſix hours of ebb, but never during the flood: becauſe this favours the hypotheſis they have advanced to account for their origin and cauſes; an hypotheſis which, in my opinion, does not ſufficiently correſpond with obſervations, as to recommend itſelf to the aſſent of intelligent perſons.

The nature of this country is ſo adapted to earthquakes, that all ages have ſeen their terrible devaſtations: and that nothing may be wanting to ſatisfy the curioſity of the reader, I ſhall introduce the account of that which laid this large and ſplendid city totally in ruins, with a ſhort narrative of the moſt remarkable that have been felt in latter ages.

1. The firſt concuſſion ſince the eſtabliſhment of the Spaniards in theſe parts, happened in 1582, a few years after the foundation of Lima; but the damage was much leſs than in ſome of the ſucceeding, being chiefly confined to the city of Arequipa, which being ſituated near that ſpot, where the motion of the earth was moſt violent, the greateſt part of it was deſtroyed.

2. On the 9th of July 1586, Lima was viſited with another earthquake, and ſo violent, that even to this time it is ſolemnly commemorated on the day of the viſitation of Elizabeth.

3. In 1609, another like the former happened.

4. On the 27th of November 1630, ſuch prodigious damage was done in the city by an earthquake, and the entire ruin of it apprehended, that in acknowledgment of its

its deliverance, a feſtival, called Nueſtra Senora del Milagro, is annually celebrated on that day.

5. In the year 1655, on the 3d of November, the moſt ſtately edifices, and a great number of houſes, were thrown down by an earthquake; the inhabitants fled into the country, and remained there ſeveral days, to avoid the danger they were threatened with in the city.

6. On the 17th of June 1678, another earthquake happened, by which ſeveral houſes were deſtroyed, and the churches conſiderably damaged.

7. One of the moſt dreadful of which we have any account, was that of the 20th of October 1687. It began at four in the morning, with the deſtruction of ſeveral public edifices and houſes, whereby great numbers of perſons periſhed; but this was little more than a preſage of what was to follow, and preſerved the greateſt part of the inhabitants from being buried under the ruins of the city. The ſhock was repeated at ſix in the morning, with ſuch impetuous concuſſions, that whatever had withſtood the firſt, was now laid in ruins; and the inhabitants thought themſelves very fortunate in being only ſpectators of the general devaſtation from the ſtreets and ſquares, to which they had directed their flight on the firſt warning. During this ſecond concuſſion the ſea retired conſiderably from its bounds, and returning in mountainous waves, totally overwhelmed Callao, and the neighbouring parts, together with the miſerable inhabitants.

8. On the 29th of September 1697, this place was viſited by another terrible earthquake.

9. On the 14th of July 1699, a great number of houſes were deſtroyed by another concuſſion.

10. The 6th of February 1716, a like diſaſter.

11. On the 8th of January 1725, another.

12. On the 2d of December 1732, was another earthquake at one in the morning.

13, 14, 15. In the years 1690, 1734, and 1745, three others happened, but neither violent nor laſting. But all theſe were leſs terrible than the laſt, as will appear from the following account of it.

16. On the 28th of October, 1746, at half an hour after ten at night, five hours and three quarters before the full of the moon, the concuſſions began with ſuch violence, that in little more than three minutes, the greateſt part, if not all the buildings, great and ſmall, in the whole city, were deſtroyed, burying under their ruins thoſe inhabitants who had not made ſufficient haſte into the ſtreets and ſquares; the only places of ſafety in theſe terrible convulſions of nature. At length the horrible effects of this ſhort ſhock ceaſed: but the tranquillity was of ſhort duration; concuſſions returning with ſuch frequent repetitions, that the inhabitants, according to the account ſent of it, computed two hundred in the firſt twenty-four hours: and to the 24th of February of the following year, 1747, when the narrative was dated, no leſs than four hundred and fifty ſhocks were obſerved, ſome of which, if leſs laſting, were equal to the firſt in violence.

The fort of Callao, at the very ſame hour, ſunk into the like ruins; but what it ſuffered from the earthquake in its buildings, was inconſiderable, when compared with the terrible cataſtrophe which followed; for the ſea, as is uſual on ſuch occaſions, receding to a conſiderable diſtance, returned in mountainous waves foaming with the violence of the agitation, and ſuddenly turned Callao and the neighbouring country, into a ſea. This was not, however, totally performed by the firſt ſwell of the waves;

for the ſea, retiring further, returned with ſtill more impetuoſity; the ſtupendous water covering both the walls and other buildings of the place; ſo that whatever had eſcaped the firſt, was now totally overwhelmed by thoſe terrible mountains of waves, and nothing remained except a piece of the wall of the fort of Santa Cruz, as a memorial of this terrible devaſtation. There were then twenty-three ſhips and veſſels, great and ſmall, in the harbour, of which nineteen were abſolutely ſunk, and the other four, among which was a frigate called St. Firmin, carried by the force of the waves to a great diſtance up the country.

This terrible inundation extended to other ports on the coaſt, as Cavallos and Guanape; and the towns of Chancay, Guara, and the valleys Della Baranca, Sape, and Pativilca, underwent the ſame fate as the city of Lima. The number of perſons who periſhed in the ruin of that city, before the 31ſt of the ſame month of October, according to the bodies found, amounted to thirteen hundred, beſides the maimed and wounded, many of which lived only a ſhort time in torture. At Callao, where the number of inhabitants amounted to about four thouſand, two hundred only eſcaped; and twenty-two of theſe by means of the above-mentioned fragment of a wall.

According to an account ſent to Lima after this accident, a volcano in Lucanas burſt forth the ſame night and ejected ſuch quantities of water, that the whole country was overflowed; and in the mountain near Patas, called Converſiones de Caxamarquilla, three other volcanoes burſt, diſcharging frightful torrents of water; like that of Carguayraſſo, mentioned in the firſt part of this work.

Some days before this deplorable event, ſubterraneous noiſes were heard at Lima, ſometimes reſembling the bellowing of oxen, and at others the diſcharges of artillery. And even after the earthquake they were ſtill heard during the ſilence of the night; a convincing proof that the inflammable matter was not totally exhauſted, nor the cauſe of the ſhocks abſolutely removed.

The frequent earthquakes to which South America, particularly Lima, and all the country of Valles, is ſubject, opens a field for enquiry not leſs ample than that juſt mentioned, concerning their cauſe. Many hypotheſes have been formed by philoſophers; but the generality, and with the greateſt appearance of truth, agree in deducing them principally from the violent force of the air contained in ſulphureous ſubſtances and other minerals, and alſo that confined in the pores of the earth; which being compreſſed by the incumbent load, make a very violent reſiſtance. This is ſo far from implying any contradiction, that beſides being countenanced by reaſon it is alſo confirmed by experience. But the apparent difficulty conſiſts in explaining how the vents of the earth become again filled with air, after one concuſſion has happened; it being natural to think, that the quantity which ſtruggled for vent, was thereby diſcharged, and that a long interval of time was neceſſary before another could be produced. Alſo why ſome countries are more ſubject to theſe terrible convulſions than others. Though this ſubject has been treated of by ſeveral authors, I think it my duty here to deliver the opinion which to me ſeems moſt probable.

Experience has ſufficiently ſhewed, eſpecially in this country, by the many volcanoes in the Cordilleras which paſs through it, that the burſting of a new burning mountain cauſes a violent earthquake, ſo as totally to deſtroy all the towns within its reach; as happened at the opening of the volcano in the deſert of Carguagoazo, as mentioned before. This tremulous motion, which we may properly call an earthquake, does not ſo uſually happen in caſe of a ſecond eruption, when an aperture has been before made; or at leaſt, the motion it cauſes in the earth is comparatively but ſmall. Whence it is inferred that an aperture being once made, however the ſubſtances in the bowels of

the mountain may take fire, the convulſion of the earth is ſeldom or never felt a ſecond time. The reaſon of which is, that the ſudden reiteration of this accident greatly augments the volume of the air by rarefaction; and as it finds an eaſy paſſage without labouring in the bowels of the earth for a vent, no other concuſſion is produced than what muſt follow from the eruption of a great quantity of air through an aperture too narrow for its volume.

The formation of volcanoes is now well known; and that they owe their origin to ſulphureous, nitrous, and other combuſtible ſubſtances in the bowels of the earth; for theſe being intermixed, and, as it were, turned into a kind of paſte by the ſubterraneous waters, ferment to a certain degree, when they take fire; and by dilating the contiguous wind or air, and alſo that within their pores, ſo that its volume is prodigiouſly increaſed beyond what it was before the inflammation, it produces the ſame effect as gunpowder when fired in the narrow ſpace of a mine, but with this difference, that powder on being fired immediately diſappears, whereas the volcano being once ignited, continues ſo till all the oleaginous and ſulphureous particles contained in the mountain are conſumed.

Volcanoes are of two kinds, contracted and dilated. The former are found where a great quantity of inflammable matter is confined in ſmall ſpace; the latter where theſe combuſtibles are ſcattered at a conſiderable diſtance from one another. The firſt are chiefly contained in the bowels of mountains, which may be conſidered as the natural depoſitaries of theſe ſubſtances. The ſecond may be conſidered as ramifications, which, though proceeding from the former, are, however, independent, extending themſelves under the plains, and traverſing them in ſeveral directions. This being admitted, it will appear, that in whatever country volcanoes, or depoſitaries of theſe ſubſtances, are very common, the plains will be more diverſified with theſe ramifications; for we are not to imagine that it is only within the boſoms of mountains that ſubſtances of this nature exiſt, and that they are not diſſeminated through all the parts of the adjacent region. Thus the country now under conſideration, abounding in theſe igneous ſubſtances more than any other, muſt by the continual inflammation which neceſſarily follows their natural preparation for it, be more expoſed to earthquakes.

Beſides the ſuggeſtions of natural reaſon, that a country containing many volcanoes muſt alſo be every where veined with ramifications of correſpondent ſubſtances, it is confirmed by experiment in Peru; where we find almoſt univerſally mines of nitre, ſulphur, vitriol, ſalt, bitumen, and other inflammatory ſubſtances, which ſufficiently confirm the truth of theſe inferences.

The ſoil both of Quito and Valles, particularly the latter, is hollow and ſpongy, ſo as to be fuller of cavities and pores than is uſually ſeen in that of other countries, and conſequently abounds with ſubterranean waters. Beſides which, as I ſhall preſently ſhew more at large, the waters, from the ice continually melting on the mountains, being filtrated through theſe pores during their deſcent, penetrate deep into the cavities of the earth, and during their ſubterranean courſe, moiſten, and turn into a kind of paſte, thoſe ſulphureous and nitrous ſubſtances; and though they are not here in ſuch prodigious quantities as in volcanoes, yet they are ſufficient, from their inflammatory quality, to rarefy the air contained in them, which, eaſily incorporating itſelf with that confined in the innumerable pores, cavities, or veins of the earth, compreſſes it by its greater expanſion, and at the ſame time rarefies it by its heat; but the cavities being too narrow to admit of its proper dilatation, it ſtruggles for a vent, and theſe efforts ſhake all the contiguous parts; till at laſt, where it finds the leaſt reſiſtance, it forces itſelf a paſſage, which ſometimes cloſes again by the tremulous motion it occaſions, and at others continues open, as may be ſeen in different parts of all theſe countries. When, on account

of

of the reſiſtance being equal, it finds a paſſage in ſeveral parts, the chaſms or fiſſures are generally ſmaller, ſo that rarely any veſtiges remain after the concuſſion. At other times, when the ſubterranean cavities are ſo large as to form ſubterranean caverns, they not only rend the earth, and at every ſhock leave it full of diſruptions, but alſo cauſe it to ſink into ſpacious hollows, as I particularly obſerved near the town of Guaranda, a place in the juriſdiction of Chimbo, in the province of Quito; where, in the year 1744, all the ground on the one ſide of the chaſm ſunk near a yard, the other ſide riſing in the ſame proportion, though with ſome inequalities on both ſides.

The loud ſubterranean noiſes preceding earthquakes, and which imitate thunder at a diſtance, ſeem to correſpond with the above-mentioned cauſe and formation of earthquakes, as they can only proceed from the rarefaction of the air on the ignition of the exploſive ſubſtances; which being impetuouſly propagated through all the caverns of the earth, propelling and at the ſame time dilating what is contained in them, till all the cavities being pervaded, and no vent found, the efforts for a further dilatation begin, and form the concuſſion with which it terminates.

It muſt be obſerved that at the time when the air, which had been confined within the earth, burſts through it, neither the light nor fire emitted from the chaſms are ſeen. The reaſon is, that this light and fire exiſt only at the inſtant when the matter becomes inflamed, and the air ſpreading itſelf through all the veins, the light is extinguiſhed by its dilatation, and becomes afterwards imperceptible. It is neceſſary to ſuppoſe that there muſt be ſome, though a ſhort interval, between the inflammation and effect. Neither is the flame permanent, the ſubſtance ignited not containing thoſe ſolid and oleaginous particulars which ſupply the volcanoes. Beſides, they are not in ſufficient quantity to aſcend from the ſubterraneous caverns where they took fire, to the ſuperficies of the earth. Farther, this not being the place where the matter was originally contained, but that where it has forced a paſſage for the quantity of air which its rarefaction augmented, the firſt light is loſt among the meanders of its courſe, and therefore not to be ſeen when the wind violently forces a paſſage. There have, however, been inſtances when the light has been ſeen, though much oftener the ſmoke; but this is generally loſt in the clouds of duſt aſcending at the time of the concuſſion.

The ſhocks are repeated at intervals, of a few days, ſometimes of a few hours; proceeding from the matter being diſperſed in different places, and each in a different degree of aptitude for inflammation, one part kindling after another ſucceſſively, as each is more or leſs prepared. Hence proceed alſo the different violence of the ſhocks and the different intervals of time. For the quantity firſt inflamed increaſes by its heat other inflammable portions of matter; whence a part which would not have been ignited till after ſome days, by means of this adventitious fire, becomes ſo within a few hours. The ſecond ſhocks are more violent, and cauſe a greater deſtruction than the firſt; for the fire of the portion of matter which is firſt inflamed, though in itſelf ſmall, is ſufficient to accelerate the fermentation of a much larger quantity, and conſequently muſt be attended with more powerful effects.

Though the ſummer here, as we have already obſerved, is conſiderably warm, yet it is not productive of venomous creatures, which in this country are not known; and the ſame may be ſaid of all Valles, though there are ſome parts, as Tumbez and Piura, where the heat is nearly equal to that at Guayaquil. This ſingularity can therefore proceed from no other cauſe than the natural drought of the climate.

The diſtempers moſt common at Lima are malignant, intermittent, and catarrhous fevers, pleuriſies, and conſtipations; and theſe rage continually in the city. The ſmall-

pox is alſo known here as at Quito, but is not annual, though, when it prevails, great numbers are ſwept away by it.

Convulſions are likewiſe very common, and no leſs fatal. This diſorder, though unknown at Quito, is frequent all over Valles, but more dangerous in ſome parts than others. Something has already been ſaid of this diſtemper in our account of Carthagena, but a more circumſtantial deſcription of it was reſerved for this place.

This diſtemper is divided into two kinds, the common or partial, and the malignant or arched convulſions. They both come on when nature is ſtruggling in the criſis of ſome acute diſtemper, but with this important difference, that thoſe attacked with the former often recover, though the greater part die on the third or fourth day, the term of its duration; while thoſe who have the misfortune of being attacked by the latter, ſink under it in two or three days, it being very extraordinary to recover, and is therefore termed malignant.

The ſpaſms or convulſions conſiſt in a total inactivity of the muſcles, and a conſtriction of the nerves of the whole body, beginning with thoſe of the head; and theſe nerves being the channels which convey nouriſhment to the body, and this nouriſhment being precluded by the conſtriction of its conduits, they all ſucceſſively ſuffer; the muſcles, by having loſt their activity, cannot aſſiſt in the motion of the nerves, and theſe being conſtringed, can no longer perform their office. Add to this a pungent humour diſperſing itſelf through all the membranes of the body, and cauſing inſupportable pains; ſo that the groaning patient labours under inconceivable tortures, which are ſtill increaſed on his being moved, though with the greateſt care and gentleneſs, from one ſide to the other. The throat is ſo contracted that nothing can be conveyed into the ſtomach. The jaws are alſo ſometimes ſo cloſely locked, as impoſſible to be opened: thus the miſerable patient lies without motion, and tortured in every part of his body, till nature quite exhauſted, falls a victim to this deleterious diſtemper.

In the partial kind, the pulſe is more affected than in the diſtemper which preceded it, and commonly abates the violence of a fever. But in the malignant kind it augments, the circulations being quickened; and whether it be the effect of the humour impetuouſly circulating through every part, or of the pain proceeding from the laceration of the membranes and abrading the muſcles, the patient falls into a lethargy, but which does not remove the torturing ſenſation of theſe punctures, often ſo inſupportable, that the miſerable patient violently turns himſelf, and thus augments his agonies, as evidently appears from his piercing cries and groans.

The malignant and arched ſpaſm, even in the firſt ſtage, is ſo violent as to cauſe a contraction of the nerves of the vertebræ from the brain downwards; and as the diſtemper increaſes, and the malignant humour acquires great activity, the nerves become more and more conſtricted, that the body of the patient, contrary to nature, inclines backward into an arch, and all the bones become diſlocated. However terrible the pains reſulting from hence may ſeem, they are ſtill increaſed by thoſe of the other ſpecies of convulſions, when the violence is ſuch that the patient uſually loſes all ſenſation, and falls into a total inaction, not having breath to utter his complaints.

It is common at the beginning of this diſtemper to be totally convulſed, ſo that every part of the patient is affected, and, during the continuance, is, as it were, deprived of all ſenſation. Their return is more frequent and laſting as the diſtemper increaſes, till nature becomes entirely ſpent, when the lethargy fits ſucceed, and it is generally in one of theſe that the patient breathes his laſt.

The uſual method of treating this diſtemper is by keeping both the bed and the chamber very cloſe, even with a fire in it, that the pores being opened by the heat, the tranſpiration

ſpiration may be more copious. Laxative clyſters are often injected to mollify the contractions of the inteſtines, and other internal parts. External applications are alſo applied to ſoften the parts, and open the ducts by which nature may evacuate the morbid humour: for the ſame intention and to check its progreſs, cordials and diuretic draughts are preſcribed, and alſo the bath; but the latter only at the beginning of the firſt ſtage of the diſtemper; for if it is found to increaſe on the ſecond day, bathing is no longer ordered.

The women of Lima are ſubject to a diſtemper, extremely painful, very contagious, and almoſt incurable; namely, a cancer in the matrix, which even at the beginning is attended with ſuch excruciating pains, that their lives are one continued ſeries of groans and complaints. During its progreſs, they diſcharge great quantities of morbid humours, become attenuated, fall into a ſtate of languor, which gradually puts a period to their lives. It uſually continues ſome years, with intervals of eaſe, during which, if the evacuations do not entirely ceaſe, they are conſiderably intermitted; the pains ſeem over, and they are capable of dreſſing themſelves and walking abroad: but the diſeaſe ſuddenly returns with double violence, and the patient becomes totally diſabled. This diſtemper comes on ſo imperceptibly, as not to be indicated either by the countenance or pulſe, till at its height; and ſuch is the contagion of it, that it is contracted only by ſitting in the ſame chair commonly uſed by an infected perſon, or wearing her cloaths; but it has not been known to affect the men, huſbands uſually living with their wives till the laſt ſtage of the diſtemper. Two cauſes are aſſigned for this malady; their exceſſive uſe of perfumes, which they always carry about them, and may doubtleſs contribute greatly to promote it: the other a continual riding in their calaſhes; but this does not ſeem to be of ſo much conſequence as the former. For then the moſt diſtinguiſhed of the fair ſex in other countries, who ride in coaches, and even uſe the more violent exerciſe of the horſe, would not be exempt from it.

Slow or hectic fevers alſo prevail greatly in theſe countries, and are likewiſe contagious, but more from a want of proper care in the furniture and apparel of the perſon infected, than any malignancy of the climate.

The venereal diſeaſe is equally common in this country as in thoſe we have already mentioned; it is indeed general in all that part of America; and as little attention is given to it till arrived to a great height, the general cuſtom in all thoſe parts, a repetition here would be needleſs.

CHAP. VIII. — *Fertility of the Territories of Lima, and the Manner of cultivating the Soil.*

IT is natural to think that a country, where rain is ſeldom or ever known, muſt of neceſſity be totally barren, whereas the country of Lima enjoys a fertility to be envied, producing all kinds of grain, and a prodigious variety of fruits. Here induſtry and art ſupply that moiſture which the clouds ſeem to withhold; and the ſoil is by this means rendered remarkably fruitful, amidſt a continual drought.

It has already been obſerved, that one of the principal cares of the Yncas was the cutting and diſpoſing in the moſt advantageous manner trenches or ſmall canals, in order to conduct the waters of the rivers to nouriſh every part, and render large fields capable of producing grain. The Spaniards finding theſe uſeful works ready executed to their hands, took care to keep them in the ſame order; and by theſe are watered the ſpacious fields of wheat and barley, large meadows, plantations of ſugar-canes and olive-trees, vineyards,

vineyards, and gardens of all kinds, all yielding uncommon plenty. Lima differs from Quito, where the fruits of the earth have no determined ſeaſons; but here the harveſts are gathered in, and the trees drop their leaves, according to their reſpective natures; for thoſe which grow ſpontaneouſly in a hot climate, though the livelineſs of their verdure fades, their leaves do not fall off till others ſupply their place. The bloſſoms alſo have their reſpective times, and are correſpondently ſucceeded by fruits; ſo that this country reſembles thoſe of the temperate zones, no leſs in the product and ſeaſons of corn, bloſſoms, fruits, and flowers, than in the difference of winter and ſummer.

Before the earthquake in 1687, when this city ſuffered in ſo deplorable a manner, the harveſts of wheat and barley were ſufficient to ſupply the wants of the country without any importation, eſpecially of wheat; but by this convulſion of nature, the ſoil was ſo vitiated, that the wheat rotted ſoon after it was ſown, occaſioned, probably, by the vaſt clouds of ſulphureous particles then exhaled, and the prodigious quantities of nitrous effluvia diffuſed through it. This obliged the owners of the lands to apply them to other uſes, and accordingly many of them were turned into meadows of clover, plantations of ſugar-canes, and other vegetables, which they found not ſubject to the ſame misfortune. After the land had continued forty years in this ſtate of ſterility, the huſbandmen began to perceive ſuch alteration in the ſoil, as promiſed a ſpeedy return to its former goodneſs. Accordingly ſome trials were ſucceſsfully made with wheat, and by degrees that grain was found to thrive as before that dreadful event. But whether it be from the other plants, which have been cultivated in thoſe parts, or from any miſtruſt of the huſbandmen, the ſame quantity has not been ſown as before. It is natural to think that the late dreadful earthquake muſt have had the ſame pernicious effects on the ſoil; though by means of the eſtabliſhment of the corn trade with Chili ſince that time, the conſequences will not be ſo ſenſibly felt. The fields in the neighbourhood of Lima are chiefly ſown with clover, of which there is here a conſumption not to be paralleled in any other place: it being the common fodder for all beaſts, particularly the mules and horſes, of which there is an inconceivable number.

The other parts of the country are taken up with plantations already mentioned, among which thoſe of canes are not the leaſt, and yield an excellent kind of ſugar. All theſe fields and plantations are cultivated by negro ſlaves, purchaſed for this ſervice; and the ſame is ſeen in the other improved parts of Valles.

The olive plantations appear like thick foreſts; for beſides the height, magnitude, and fulneſs of leaves of theſe trees, in all which they exceed thoſe of Spain, they are never pruned, by which means their branches become ſo interwoven, that the light cannot penetrate through their foliage. The plough is not uſed here; the only cultivation they require, being to clear the holes made at the foot of each for receiving the water, to keep the trenches open which convey it, and every three or four years to cut down all ſhoots or cions, in order to form paſſages for gathering the fruit. With this ſmall trouble the inhabitants have an uncommon plenty of the fineſt olives, which they either commit to the preſs for oil, or pickle, they being particularly adapted to the latter, both with regard to their beauty, largeneſs, and flavour. Their oil is much preferable to that of Spain.

The country contiguous to the city is covered with gardens, producing all the herbs and fruits known in Spain, and of the ſame goodneſs and beauty, beſides thoſe common to America; all which flouriſh here in a very uncommon degree; ſo that none of the parts of Peru, at leaſt ſuch as we viſited, are to be compared with thoſe of the

neighbourhood of Lima, where every place is covered with fruits and eſculent vegetables.

It alſo enjoys another ſingular advantage, the whole year being, as it were, ſummer with regard to the plenty and freſhneſs of fruits; for the ſeaſons of the year varying alternately in Valles and the mountains, when the time of fruits is over in Valles, it begins on the ſkirts of the mountains; and the diſtance from Lima being not above twenty-five or thirty leagues, they are brought thither, and by this means the city is conſtantly ſupplied with fruits, except a few, as grapes, melons, and water-melons, which requiring a hot climate, do not come to perfection in the mountains.

The grapes are of various kinds; and among them, one called the Italian, very large and delicious. The vines extend themſelves on the ſurface of the ground, which is very well adapted to ſupport them, being either ſtony or full of ſand. Theſe vines are pruned and watered at proper times, and thrive remarkably without any other care.

No other culture is beſtowed on thoſe deſigned for wine, for both at Ica, Piſco, Naſca, and all other parts where they grow, they are formed into eſpaliers. None of the grapes near Lima are uſed in making wine, the demand for them in other reſpects being too large.

The ſoil is ſtony and ſandy, that is, conſiſting of ſmooth ſtones or pebbles, which are ſo numerous that as other ſoils are entirely ſand, rock, or earth, this is wholly of the above ſtones; and in ſome parts prove very inconvenient to travellers, whether in a carriage or on horſeback. The arable lands have a ſtratum of about a foot or two of earth, but below that the whole conſiſts entirely of ſtones. From this circumſtance, the ſimilarity of all the neighbouring coaſts, and the bottom of the ſea, this whole ſpace may be concluded to have been formerly covered by the ocean, to the diſtance of three or four leagues, or even farther, beyond its preſent limits. This is particularly obſervable in a bay about five leagues north of Callao, called Marques, where in all appearance, not many years ſince, the ſea covered above half a league of what is now Terra Firma, and the extent of a league and a half along the coaſt.

The rocks in the moſt inland part of this bay are perforated and ſmoothed like thoſe waſhed by the waves; a ſufficient proof that the ſea formed theſe large cavities, and undermined ſuch prodigious maſſes as lie on the ground, by its continual eliſions; and it ſeems natural to think that the like muſt have happened in the country contiguous to Lima, and that parts, conſiſting of pebbles like thoſe at the bottom of the adjacent ſea, were formerly covered by the water.

Another ſingularity in this arid country is, the abundance of ſprings, water being found every where with little labour, by digging only four or five feet below the ſurface. This may ariſe from two cauſes; the one, that the earth, being, from its compoſition, very ſpungy, the water of the ſea eaſily inſinuates itſelf to a great diſtance, and is filtrated in paſſing through its pores. The other, that the many torrents, after deſcending from the mountains, ſoon loſe themſelves in theſe plains, but continue their courſe along the ſubterranean veins of the earth; for this ſtony quality of the ſoil from the nature of the ſprings cannot extend to any great depth, and underneath it the ſtratum is hard and compact; conſequently the water muſt be conveyed to the moſt porous parts, which being the ſtony, it there precipitates into a ſubterranean courſe, leaving the ſurface dry. We have already obſerved* that from many of the rivers in Valles, though apparently dry, the inhabitants procure a ſufficient quantity

* Chap. I. of this Part.

of

of water by digging wells in the beds over which their waters run in the winter: others might be paſſed without being known, but the bottom conſiſting entirely of pebbles, wherever the beaſt ſet their feet, the water immediately oozes out. The reaſon of this is, that the water at that time runs a little below the ſurface, and I do not doubt but the ſame will be found in all Valles, though at different depths in different places.

This plenty of ſubterraneous ſtreams is doubtleſs of great advantage to the fertility of the country, particularly with regard to the larger plants, whoſe roots ſtrike deepeſt; and this ſeems a bountiful indulgence of the wiſe Author of Nature, who, to provide againſt the ſterility which would certainly affect theſe countries from a want of water, has ſent a ſupply from the mountains, either in open rivers or ſubterraneous canals.

The lands in the juriſdiction of Chancay, like the other parts of the coaſts of Peru, are manured with the dung of certain ſea birds, which abound here in a very extraordinary manner. Theſe they call guanoes, and the dung guano, the Indian name for excrement in general. Theſe birds, after ſpending the whole day in catching their food in the ſea, repair at night to reſt on the iſlands near the coaſt, and their number being ſo great as entirely to cover the ground, they leave a proportionable quantity of excrement or dung. This is dried by the heat of the ſun into a cruſt, and is daily increaſing, ſo that notwithſtanding great quantities are taken away, it is never exhauſted. Some will have this guano to be only earth endowed with the quality of raiſing a ferment in the ſoil with which it is mixed. This opinion is founded on the prodigious quantities carried off from thoſe iſlands, and on the experiment made by digging or boring, by which the appearance at a certain depth, was the ſame as at the ſuperficies; whence it is concluded, that the earth is naturally endowed with the heating quality of dung or guano. This would ſeem leſs improbable, did not both its appearance and ſmell prove it to be the excrement in queſtion. I was in theſe iſlands when ſeveral barks came to load with it; when the inſupportable ſmell left me no room to doubt of the nature of their cargo. I do not however pretend to deny, but that it may be mixed with earth, or that the moſt ſuperficial part of the earth does not contract the like virtue, ſo as to produce the ſame effect. But however it be, this is the manure uſed in the fields ſowed with maize, and with proper waterings is found greatly to fertilize the ſoil, a little of it being put cloſe to every ſtem, and immediately watered. It is alſo of uſe in fields of other grain, except wheat and barley, and, conſequently, prodigious quantities of it yearly uſed in agriculture.

Beſides the orchards, fields, and gardens, with which this country is ſo delightfully variegated, there are other parts where nature itſelf ſpontaneouſly furniſhes beautiful proſpects for the inhabitants, and plenty of excellent food for their cattle; particularly the hills of St. Chriſtopher and Amancaes, whoſe perpetual verdure, diverſified in ſpring with elegant flowers, ſeems to invite the neighbouring inhabitants to a nearer enjoyment of the beauties it preſents at a diſtance to their view. The parts in the neighbourhood of the city, to the diſtance of ſix or eight leagues, offer the like entertainment; and accordingly many families reſort thither for the change of air, and the tranquillity of rural amuſement. The hills called Amancaes, already mentioned, have their name from a certain flower growing on them. It is yellow, and of the campanula form, with four pointed leaves. Its colour is remarkably brilliant, and in that wholly conſiſts its value, being totally void of fragrancy.

Beſides theſe delightful retreats, the city has a public walk in the ſuburb of St. Lazaro, called Alameda, conſiſting of rows of orange and lemon trees; along the banks of

the river is another, called the Acho, to which there is a daily reſort of coaches and calaſhes.

The only monuments of antiquity remaining in the neighbourhood of Lima, are the guacas, or ſepulchres of the Indians, and ſome walls, which were built on both ſides of the roads, and are frequently ſeen all over this country. But three leagues north-eaſt of the city, in a valley called Guachipa, are ſtill ſtanding the walls of a large town. Through ignorance I did not viſit them whilſt I was at Lima: the account of them, however, which the ingenious Marquis de Valde Lyrios was pleaſed to give me, may be equally relied on, as if related from my own knowledge; eſpecially as he took a very accurate ſurvey of the whole. He obſerved, that the ſtreets were very narrow; that the walls of the houſes, which in common with all the buildings of that time were without roofs, were only of mud, and that each houſe conſiſted of three ſmall ſquare apartments. The doors towards the ſtreet, were not ſo high as the general ſtature of a man, but the walls wanted little of three yards. Among all the houſes which compoſed this large town, ſituated at the foot of a mountain, is one, whoſe walls overlook all the others, and thence it is concluded to have belonged to the cacique or prince; though its ruinous condition renders it impoſſible to determine abſolutely. The inhabitants of this valley, where the fruitful fields are watered from the river Rimac, at no great diſtance from theſe ruins, call them Old Caxamarca, though it cannot now be diſcovered whether that was the real name of the town in the times of paganiſm. For there neither remains any memorial of ſuch tradition, nor any mention of it in the hiſtories of that kingdom, written by Garcilazo and Herrera; ſo that all we know is, that the epithet Old is now applied to it by way of diſtinction from the preſent town of Caxamarca.

One aſtoniſhing particular in the walls of this town, and in all others in the neighbouring valleys, is, that though built on the ſurface of the earth, without any foundation, they have withſtood thoſe violent earthquakes which overthrew the more ſolid buildings of Lima and other large towns erected in the Spaniſh manner: having received no other damage than what naturally reſults from being forſaken, or what the drivers have done who make it a reſting place for their cattle in the road to Lima.

From the conſtruction of theſe houſes it may be inferred, that long experience has inſtructed the natives, that in parts ſo ſubject to earthquakes, it was improper to lay a foundation in order to ſtrengthen the walls; and tradition informs us, that when the newly-conquered Indians ſaw the Spaniards dig foundations for lofty buildings, they laughed at them, telling them they were digging their own ſepulchres; intimating, that the earthquakes would bury them under the ruins of their houſes. It is indeed a melancholy proof of pride and obſtinacy, that after having the prudent example of the Indians before their eyes, the total ruin of the city, at four different times, in leſs than the ſpace of two hundred years, has not been able entirely to eradicate the deſtructive paſſion for airy and elegant buildings, though theſe neceſſarily require large and lofty walls, which muſt have a foundation proportioned to the magnitude of the ſtructure, and the weight they are to ſupport.

CHAP. IX. — *Of the Plenty and different Kinds of Proviſions at Lima.*

THE fertility of the ſoil, the goodneſs of the climate, and the convenient ſituation of Lima, concur to maintain in it a conſtant plenty. The fruits and herbs have been already

already mentioned; it remains that we conſider the meat and fiſh with which it is alſo equally provided.

The bread at Lima is inconteſtably the beſt in all this part of America, both with regard to its colour and taſte, the goodneſs of the corn being improved by the manner of working it; and at the ſame time ſo reaſonable, that the inhabitants uſe no other. It is of three kinds: one called Criollo, the crumb of which is very light and ſpongy; the ſecond, French bread; and the laſt, ſoft bread. It is kneaded by negroes employed by the bakers, many of whom are very rich, and their ſhops always well provided. Beſides their own ſlaves, the bakers are alſo obliged to receive any delivered up to them by their maſters to work as a puniſhment; and for theſe, beſides finding the ſlaves in proviſions, they pay the maſter the uſual wages in money or in bread. This puniſhment is the ſevereſt that can be inflicted on them, and, indeed, all the hardſhips and cruelties of the galleys are leſs than what theſe wretches are obliged to undergo. They are forced to work the whole day, and part of the night, with little food and leſs ſleep; ſo that in a few days the moſt vigorous and ſtubborn ſlave becomes weak and ſubmiſſive, and proſtrates himſelf before his maſter, with tears, intreaties, and promiſes of amendment on being removed from that place, the dread of which is doubtleſs of the greateſt uſe in awing the vaſt number of ſlaves, both within and without the city.

Their mutton is the moſt common food, and is very palatable from the nitrous paſtures where the ſheep are fattened. The beef alſo is good, but little eaten except by the Europeans, ſo that two or three beaſts ſupply the city for a week. Here is alſo plenty of poultry, partridges, turtle-doves, &c. Pork is alſo in great abundance, though not equally delicate with that of Carthagena. The lard is uſed in dreſſing all kinds of diſhes whether of fleſh or fiſh, oil being only uſed in ſalads and the like. This method of cookery is ſaid to have had its riſe when the country afforded no oil, and has been continued to the preſent time, notwithſtanding it is now produced in great quantities. Antonia de Rivero, an inhabitant of Lima, in the year 1660, planted the firſt olive-tree ever ſeen in Peru.

From the mountains are often ſent, by way of preſent, frozen calves; being killed there, and left two or three days on the heaths to freeze; after which they are carried to Lima, where they may be kept any time required, without the leaſt tendency to putrefaction.

Of fiſh there is ſtill a greater variety daily brought from the neighbouring parts of Chorillos, Callao, and Ancon, the Indian inhabitants of which make fiſhing their whole buſineſs. The moſt palatable are the corbinas, and the pege reyes, or king's fiſh; but thoſe in the greateſt plenty, and at the ſame time very palatable, are the anchovies. The corbinas, and the king's fiſh, infinitely excel thoſe of Spain; the latter is alſo remarkable for its ſize, being generally ſix or ſeven Paris inches in length; yet even theſe are thought to be ſurpaſſed by thoſe caught in Buenos Ayres river. It is a ſalt-water fiſh, but very little different from that caught in the rivers of Spain. The river of Lima affords a ſort of prawns, two or three inches in length, but thoſe ſhould rather be called cray-fiſh.

The whole coaſts abound with ſuch ſhoals of anchovies, as exceed all compariſon; and beſides the vaſt quantities caught by fiſhermen, they are the chief food of innumerable flights of birds, with which all thoſe iſlands abound, and commonly called guanoes, poſſibly from the guano or dung mentioned in the preceding chapter; many of them are indeed alcatraces, a kind of gull, though all comprehended under the generical name of guanoes. A little after the appearance of the ſun, they riſe from thoſe

iſlands

iſlands in ſuch large and thick flights as totally to cover them, and fly towards the ſea for an hour or two, without any viſible decreaſe of their number. When at ſome diſtance from the land they divide themſelves, and begin their fiſhing in a very entertaining manner. They fly in a circle at a conſiderable height above the water, and, on ſeeing a fiſh, they dart down with their beak foremoſt and their wings cloſed with ſuch force, that the agitation of the water is ſeen at a diſtance; after which, they riſe again into the air, and devour the fiſh. Sometimes they remain a conſiderable time under water, and riſe at ſome diſtance from the place where they fell, doubtleſs becauſe the fiſh has endeavoured to eſcape, thus diſputing celerity with them in their own element. They are continually ſeen in the place they frequent, ſome watching in gyrations, ſome darting down, others riſing with their prey; while their great numbers render this confuſion diverting to the ſpectator. When they are either tired or ſatisfied, they alight upon the waves, and, at ſun-ſet, forming themſelves into one body, withdraw to the iſlands where they paſs the night.

At the port of Callao it is obſerved, that all the birds which reſt on thoſe iſlands to the north of it, in the morning univerſally fly towards the ſouth in queſt of prey, returning in the evening to their place of reſt; when the middle of the flight is over the harbour, neither the beginning nor end can be ſeen, and the whole flock take up two or three hours in paſſing over.

Though ſhell-fiſh are very ſcarce along this coaſt, ſome are found near Callao; particularly a kind, the ſhell of which reſembles that of a muſcle, though much larger. The fiſh itſelf has more the appearance of an oyſter, and much the ſame taſte.

The wines at Lima are of different ſorts, white, red, and dark red: and of each ſort ſome are very generous and delicious. They are imported from the coaſts of Naſca, Piſco, Lucumba, and Chili; but the latter produces the beſt, and among them ſome muſcadel. The wine of Naſca is white, and has the leaſt demand of any, being inferior to the others, both in quality and taſte. That from Piſco has the greateſt ſale; and, from the ſame place, come all the brandies, either uſed at Lima or exported; no rum being either made or uſed here.

Moſt of the dried fruits are brought from Chili; and, by means of the trade carried on between the two kingdoms, Lima is ſupplied with all manner of fruits known in Spain, as almonds, walnuts, filberts, pears, apples, &c. ſo that their tables cannot, in this reſpect, fail of plenty and elegance, having at one time the fruits of the different ſeaſons, both of America and Europe. But amidſt this plenty, every thing is very dear, the price being four or five times as much as at Quito, bread only excepted. Wine, oil, and dried fruits, are ſome of the cheapeſt. The poor claſs, however, as the negroes and other caſts, live tolerably well, fiſh, which is little eſteemed by the opulent, ſelling at a low price; the ſame may be ſaid of mutton and beef, with regard to the inhabitants of this country in general.*

Sweetmeats are alſo here in the ſame plenty as in the other parts of South America, though ſeldom eaten, except as deſerts, and even then very moderately. Inſtead of chocolate, mate or Paraguay tea is generally uſed, and prepared twice a day. Though this has here the defect already obſerved, it is better prepared than in any other part.

* A quarter of their beſt beef may be bought for eight rials (3s. 7d. ſterling); the hide of a beaſt being, commonly, of more value than the carcaſe. A.

CHAP. X. — *Trade and Commerce of Lima.*

THE city of Lima could not have attained to ſuch ſplendour, if, beſides being the capital of Peru, it had not been alſo the general ſtaple of the kingdom. But as it is the reſidence of the government and chief tribunals, ſo it is alſo the common factory for commerce of every kind, and the centre of the products and manufactures of the other provinces, together with thoſe of Europe, brought over in the galleons or regiſter-ſhips; and from hence they are diſtributed through the vaſt extent of theſe kingdoms, whoſe wants are ſupplied from Lima, as their common mother. At the head of this commerce is the tribunal Del Conſulado, which appoints commiſſaries to reſide in the other cities of its dependencies, extending through all Peru.

All the wealth of the ſouthern provinces is brought to Lima, where it is embarked on board the fleet, which, at the time of the galleons, ſails from Callao to Panama. The proprietors of the treaſure commit it to the merchants of Lima, who traffic at the fair with this and their own ſtock. The ſame fleet returns to the harbour of Paita, where the European merchandizes of value purchaſed at Porto Bello fair are landed, in order to avoid the delay of ſailing to Callao, and ſent by land to Lima, on droves of mules; but thoſe of leſs value are carried thither by the ſame ſhips.

On the arrival of theſe commodities at Lima, the merchants remit to their correſpondents ſuch parts as they had a commiſſion to purchaſe, reſerving the reſt in warehouſes to diſpoſe of on their own account to traders, who at this time reſort to Lima, or ſend them to their factors in the inland provinces, who remit the returns in money or bills of exchange to their principals at Lima. Theſe conſignments are repeated till they have diſpoſed of their whole ſtock. Thus the cargo of a flotilla laſts a conſiderable time, there being no immediate vent for the whole.

The produce of the ſales in the inland parts of the kingdom, is ſent to Lima in bars of ſilver, and pignas *, and is coined at the mint in this city. Thus the traders have not only a great profit in the ſale of their goods, but alſo in the returns of their ſilver, which they take at a lower rate than is allowed them for it. All theſe ſales may be conſidered as an exchange of one commodity for another; for he who ſells the goods agrees both with regard to their price, at the rate in which he is to take the ſilver bars, or pignas; and thus two ſpecies of trade are tranſacted at the ſame time, one on a ſale of goods, and the other of ſilver.

The remittances ſent to Lima during the interval between the flotillas, are laid out in manufactures of the country, great quantities of which come from the province of Quito; and this trade is carried on in all reſpects like the former; for the conſumption of them being equal or rather larger, they are not leſs neceſſary here than in Europe, being worn by all the lower claſs of people, who cannot afford the price of the European ſtuffs; and the generality of traders who come to Lima purchaſe ſtuffs of both kinds, that they may be provided with aſſortments for cuſtomers of all ranks.

Beſides this commerce, which is the moſt conſiderable, and tranſacted wholly by means of this city, Lima has alſo its particular trade with the kingdoms both of North and South America. The moſt conſiderable commodity received from the former is ſnuff, which is brought from the Havannah to Mexico, and after being there improved, is forwarded to Lima, and from thence ſent into the other provinces. This trade is

* Pignas are porous light maſſes of ſilver, being an amalgam of mercury and duſt taken out of the mines.

carried

carried on nearly in the ſame manner as that of Panama; but thoſe who deal in this commodity, never trouble themſelves with any other except perfumes, as ambergriſe, muſk, &c. and porcelain ware. Some of theſe traders are ſettled at Lima; others reſide there occaſionally, but are in general factors to the merchants at Mexico. Lima alſo receives from the ports of New Spain naphtha, tar, iron, and ſome indigo for dyeing.

The kingdom of Terra Firma ſends to Lima leaf-tobacco, and pearls, which here meet with a good market; for beſides the great numbers worn by the ladies, no mulatto woman is without ſome ornament or other made of them. During a free aſſiento of negroes, this commerce is always carried by way of Panama, and to a conſiderable amount.

The ladies, and indeed women of all ranks, have a very ancient cuſtom, namely, the carrying in their mouths a limpion, or cleanſer, of tobacco. The firſt intention of this was to keep the teeth clean, as the name itſelf intimates. Theſe limpions are ſmall rolls of tobacco, four inches in length, and nine lines in diameter, and tied with a thread, which they untwiſt as the limpion waſtes. One end of this they put into their mouth, and after chewing it for ſome time, rub the teeth with it, and thus keep them always clean and white. The lower claſs of people, who generally pervert the beſt things, carry this cuſtom to ſuch exceſs, as to keep continually in their mouths a roll of tobacco, an inch and a half in diameter; affecting to diſtinguiſh themſelves by the largeneſs of their limpions, though it abſolutely diſfigures them. This cuſtom, together with that of ſmoaking, which is equally common among the men, occaſions a great demand for leaf-tobacco. The limpions are made of Guayaquil tobacco mixed with ſome of that brought from the Havannah to Panama; but that uſed in ſmoaking comes from Santa Mayobamba, Jaen de Bracamaros, Llulla, and Chillaos, where it grows in the greateſt plenty, and is beſt adapted to that purpoſe.

All the timber uſed in building houſes, refitting ſhips, or building ſmall barks at Callao, is brought from Guayaquil, together with the cacao; but the conſumption of the latter is here very ſmall, the Paraguay tea being more generally uſed. The timber trade is carried on by the maſters of ſhips, who bring it hither on their own account, as we have already obſerved in deſcribing Guayaquil, and, depoſiting it in ſtore-houſes at Callao, ſell it as opportunity offers.

The coaſts of Naſca and Piſco ſend to Lima wine, brandy, raiſins, olives, and oil: and the kingdom of Chili, wheat, flour, lard, leather, cordage, wines, dried fruits, and ſome gold. Beſides theſe, all ſorts of goods are alſo laid up at Callao, in ſtore-houſes built for that purpoſe; ſome on account of the owners who remit them, others for maſters of ſhips who purchaſe them on the ſpot where they grow, or are made. Every Monday during the whole year there is a fair at Callao, whither the proprietors and dealers reſort from all parts; and the goods are carried, according to the buyers' direction, on droves of mules kept there for that purpoſe by the maſters of the ware-houſes, and whoſe profit wholly conſiſts in the hire of theſe beaſts.

The proviſions brought to Lima are not only ſufficient to ſupply its numerous inhabitants, but great quantities of all kinds are ſent to Quito, and its juriſdiction, to Valles, and Panama. Copper and tin in bars are brought from Coquimbo; from the mountains De Caxamarca and Chacapoyas, canvas made of cotton for ſails and other ſtuffs of that kind, and alſo of Pita: cordovan leather, and ſoap, are made all over Valles*.

* Their cotton canvas is not above four inches wide, ſo that ſail-making in this part of America is very tedious; but their ſails made of this narrow canvas are very ſtrong and laſting. A.

From

From the ſouthern provinces, as Plata, Oruro, Potoſi, and Cuſco, is ſent Vicuna wool for making hats, and ſome ſtuffs of a peculiar fineneſs. Laſtly, from Paraguay the herb called by that name is ſent, of which there is an amazing conſumption, it being ſent from Lima among the other provinces, as far as Quito. There is no province in Peru, which does not remit to Lima its products and manufactures, and ſupplies itſelf from hence with the neceſſary commodities. Thus Lima is the emporium to which people reſort from all parts; and trade being always in a conſtant circulation, beſides the continual reſort of ſtrangers, the families of rank are enabled to ſupport the expences of that ſplendour I have already mentioned; for, without ſuch continual aſſiſtance, they muſt either contract their expences, or fall victims to their oſtentation.

It would naturally be imagined that by a commerce ſo extenſive and important, many vaſt fortunes muſt be acquired, eſpecially as every branch of it is attended with great profits; but if there are ſome who actually do acquire great riches, neither their number nor opulence are equal to what might be expected; for by a narrow inſpection, there will hardly be found above ten or fifteen houſes of trade, excluſive of immoveables, as lands and offices, whoſe ſtock in money and goods amounts to five or ſix hundred thouſand crowns; and to one that exceeds this ſum, there are more that fall ſhort of it. Many poſſeſs from one to three hundred thouſand crowns, and theſe are indeed the perſons who compoſe the main body of trade. Beſides theſe there are great numbers of inferior traders, whoſe capitals do not exceed fifty or a hundred thouſand crowns. The paucity of immenſe fortunes amidſt ſuch advantages is doubtleſs owing to the enormous expences; whence, though their gains are great, they can hardly ſupport their credit; ſo that after paying the fortunes of their daughters, and the eſtabliſhing their ſons, the wealth of moſt families terminates with the life of him who raiſed it, being divided into as many ſmall ſtocks as he had dependents; unleſs ſome, either by induſtry or good fortune, improve the portion they obtained by inheritance.

The inhabitants of Lima have a natural diſpoſition and aptitude for commerce, and the city may be conſidered as an academy to which great numbers repair to perfect themſelves in the various arts of trade. They both penetrate into the fineſſes of the ſeller, and artfully draw the purchaſer into their views. They are bleſſed with a remarkable talent of perſuaſion, at the ſame time that they are incapable of being perſuaded, as well as of artfully eluding objections. They affect to ſlight what they are moſt deſirous of purchaſing, and by that means often make very advantageous bargains, which none can obtain from them. But after all theſe precautions and fineſſes in buying and ſelling, for which they are ſo diſtinguiſhed, none are more punctual and honourable in performing their contracts.

Beſides the ſhops where ſtuffs and goods of that kind are ſold, there are others for ſnuff; and in theſe may be purchaſed the wrought plate, which is bought in the cities near the mines, where it is made.

The wholeſale traders, who have large warehouſes, are not above keeping ſhops where they ſell by retail, which is reckoned no diſgrace; and thus they gain that profit which they muſt otherwiſe allow to others. And from this indulgence granted to every branch of commerce, it flouriſhes very greatly. There are, however, many families, who, as I have already obſerved, ſupport a proper ſplendor entirely by the revenue of their eſtates, without joining in the cares and hurry of commerce. But a greater number with eſtates, add the advantages of commerce, in order to preſerve them. Theſe, however, deal only at the fairs of the galleons, and in other large branches of commerce; and find the benefit of having abandoned thoſe ſcruples brought by their anceſtors from Spain, namely, that trade would tarniſh the luſtre of their nobility.

CHAP. XI. — *Extent of the Juriſdiction of the Viceroy of Peru: together with the Audiences and Dioceſes of that Kingdom.*

THE foregoing accounts naturally lead to the extent of the audience of Lima, and the juriſdiction of the viceroy of Peru. But ſuch a particular deſcription as I have already given of Quito, requiring a perſonal knowledge of all its provinces, and juriſdictions, and alſo a particular work, from the extenſiveneſs of the ſubject, I ſhall confine myſelf to ſome principal accounts, but which will convey an adequate idea of the vaſt dominions of this country. In order to this I have conſulted ſeveral perſons, ſome of which have been veſted with high employments here, and others whoſe commendable curioſity, as natives of this country, had prompted them to acquire an exact knowledge of it. This was a reſource of abſolute neceſſity; no opportunity having offered of viſiting the inland parts of theſe countries; and the accounts we received of them at Lima, were not to be depended upon, with that confidence neceſſary to their being inſerted here; for conſidering the vaſt diſtance between the capital and ſome provinces, it is no wonder they are but little known at Lima. The reader will therefore indulge me in giving a ſuperficial account of ſome; for according to the method in which I began to write the hiſtory, we ſhall inſert ſuch particulars only as are authentic; it being undoubtedly more advantageous to ſay a little with truth, than to engage in prolix and uncertain particulars.

In order the better to deſcribe the countries governed by the viceroy of Peru, without departing from the plan hitherto obſerved, I ſhall divide the whole juriſdiction of its government into thoſe audiences of which it conſiſts; theſe into the dioceſes they contain; and the dioceſes into juriſdictions under a corregidor.

The viceroyalty of Peru in South America, extends over thoſe vaſt countries, included in the juriſdictions of the audience of Lima, Los Charcas, and Chili; and in theſe are comprehended the governments of Santa Cruz de la Sierra, Paraguay, Tucuman, and Buenos Ayres. Though theſe three provinces and the kingdom of Chili have particular governors inveſted with all the authority agreeable to ſuch a character, and as ſuch are abſolute in political, civil, and military affairs, yet, in ſome caſes, are ſubordinate to the viceroy; for inſtance, on the death of any inferior governor, the vacancy is ſupplied by him. Before the erection of the viceroyalty of the new kingdom of Granada in 1739, that of Peru, as we have already obſerved, extended to the countries of the two audiences of Terra Firma and Quito; but thoſe being then ſeparated from it, the bounds of it on the north were the juriſdiction of Piura, which extends to thoſe of Guayaquil and Loxa, and that of Chacapayas, which joins to the government of Jaen de Bracamoros. Thus the viceroyalty of Peru begins at the bay of Guayaquil, at the coaſt of Tumbez, in 3° 25′ ſouth latitude, and reaches to the land of Magellan in 50°, conſequently it extends one thouſand and twelve ſea leagues. Eaſtward it partly terminates on Brazil, being bounded by the celebrated line, or meridian of demarkation, or that which ſeparates the dominions of Spain and Portugal, and on the coaſt of the North Sea: and on the weſt is terminated by the South Sea.

The audience of Lima, erected in the year 1542, though it was the year 1544 before any ſeſſion was held in that city, contains within its juriſdiction one archbiſhoprick, and four biſhoprics, viz.

The archbiſhopric of Lima, and the biſhoprics of Truxillo, Guamanga, Cuſco, and Arequipa.

The

The archbiſhopric of Lima, to which the precedence in every reſpect belongs, ſhall be the ſubject of this chapter. It contains fourteen juriſdictions, which I ſhall treat of in the order of their ſituation, beginning with thoſe neareſt the capital, and concluding with thoſe which are moſt remote: the ſame method ſhall alſo be obſerved in the other dioceſes.

I. The Curcado or circuit of Lima.
II. Chancay.
III. Santa.
IV. Canta.
V. Canete.
VI. Ica, Piſco, and Naſca.
VII. Guarachia.
VIII. Guanuco.
IX. Yauyos.
X. Caxatambo.
XI. Sarma.
XII. Jouxa.
XIII. Conchucos.
XIV. Guyalas.
XV. Guamalies.

I. II. III. The juriſdictions of Lima, Chancay, and Santa have been already deſcribed in Chap. III.

IV. The juriſdiction of Canta begins at the diſtance of five leagues north-north-eaſt of Lima, where it terminates on the curcado of that city. It extends above thirty leagues, and the greater part of them taken up by the firſt branch of the Cordillera of the Andes; ſo that the temperature of the air is different in different parts of the country; that part which lies low or among the valleys being hot, thoſe on the ſkirts of the mountains, which are alſo intermixed with ſome plains, temperate; and thoſe in the upper parts of the mountains cold. This difference of air is of great advantage both to the fruits of the earth and paſtures; for by appropriating every ſpecies to its proper degree of heat, the produce is large, and exceedingly good. Among all the fruits the papa is particularly diſtinguiſhed, and the roots carried to Lima, where they meet with a good market. The vaſt fields of bombon, part of which belongs to this juriſdiction, are by their high ſituation always cold; yet they afford paſture for innumerable flocks of ſheep. Theſe extenſive tracts of land are divided into haciendas, or eſtates belonging to noble families of Lima. At Guamantanga, one of the towns in this juriſdiction, is a miraculous crucifix, devoutly worſhipped; the inhabitants of Lima, and the neighbouring country, go thither in pilgrimage at Whitſuntide to aſſiſt at a feſtival, inſtituted particularly in honour of it.

V. The town of Canete is the capital of the juriſdiction of its name. Its juriſdiction begins at the diſtance of ſix leagues ſouth from Lima, and extends along the coaſt in the ſame rhumb above thirty leagues. The temperature of the air in this juriſdiction is the ſame with that in the valleys of Lima; and the country being watered by a large river, and other leſſer ſtreams, produced vaſt quantities of wheat and maize. Great part of the lands are planted with canes, from whence they extract an excellent ſugar. Theſe profitable tracts of land belong alſo to noble families. In the neighbourhood of Chilca, ſituated about ten leagues from Lima, is found ſaltpetre of which gunpowder is made at that city. Beſides theſe advantages it has a good fiſhery, which affords a comfortable ſubſiſtence to the Indian inhabitants of the towns, particularly thoſe ſituated near the ſea-coaſt: together with plenty of fruits, pulſe, and poultry, the breeding of which is another occupation of the Indians; whence a large trade is carried on between this juriſdiction and Lima.

VI. Ica, Piſco, and Naſca, are three towns which denominate this juriſdiction; one part of it runs along the coaſt ſouthward, and its territories extend above ſixty leagues;

but are intermixed with ſome deſerts, and the country being ſandy, thoſe parts which are beyond the reach of the trenches cut from the rivers are generally barren. I ſay generally, becauſe there are ſome tracts, which, without the benefit of an artificial watering, are planted with vines, and produce excellent grapes, the roots being ſupplied with moiſture from the internal humidity of the earth. Great quantities of wines are made from them, and chiefly exported to Callao, and from thence to Guayaquil and Panama; alſo to Guamanga, and other inland provinces: they alſo extract from theſe wines great quantities of brandy. Some parts of this juriſdiction are planted with olive-trees, which produce excellent fruit either for eating or oil. The fields, which are watered by the trenches, yield an uncommon plenty of wheat, maize, and fruits. The juriſdiction of Ica is remarkable for ſpacious woods of algarrobales or carob-trees, with the fruit of which the inhabitants feed vaſt numbers of aſſes, for the uſes of agriculture. The Indians who live near the ſea apply themſelves to fiſhing, and after ſalting carry it to the towns among the mountains, where they never fail of a good market.

VII. The juriſdiction of Guarachia contains the firſt chain and part of the ſecond of the mountains, extending itſelf along theſe chains above forty leagues. This province begins about ſix leagues eaſt of Lima. From the diſpoſition of its parts, thoſe places only which lie in the valley, and in the breaches of the mountains, are inhabited; and theſe are very fertile, producing great quantities of fruit, wheat, barley, maize, and other grain. In its mountains are ſeveral ſilver mines, though but few of them are wrought, being none of the richeſt.

VIII. Guanuco is a city and the capital of its juriſdiction, which begins forty leagues north-eaſt of Lima. This city was formerly one of the principal in theſe kingdoms, and the ſettlement of ſome of the firſt conquerors; but at preſent in ſo ruinous a condition, that the principal houſes where theſe great men lived remain as it were only monuments of its former opulence. The other parts of it can hardly be compared to an Indian town. The temperature of the air in the greateſt part of its territories is very pure and mild; and the ſoil fruitful. Several kinds of ſweetmeats and jellies are made here, and ſold to other provinces.

IX. The juriſdiction of Yauyos begins twenty leagues ſouth-eaſt from Lima, and takes up part of the firſt and ſecond chain of the Cordilleras; conſequently the temperature of the air is different in different parts. The greateſt length of this juriſdiction is about thirty leagues, and abounds in fruit, wheat, barley, maize, &c. whilſt other parts are continually clothed with verdure, and feed numerous herds and flocks for the markets of Lima; and theſe are the moſt conſiderable articles of its commerce.

X. The juriſdiction of Caxatamba, which begins thirty-five leagues north of Lima, extends about twenty leagues, and partly among the mountains, whence the temperature of the air is various; but the whole territory is very fertile in grain. It has alſo ſome ſilver mines, which are worked, and the Indians have manufactures of bays, which make part of the trade of this juriſdiction.

XI. The juriſdiction of Sarma is one of the largeſt in this archbiſhopric. It begins forty leagues north-eaſt from Lima, and terminates eaſtward on a tract of land inhabited by wild Indians, called Maran-cochas, who often make inroads into the territories of this juriſdiction. The difference of the air in its ſeveral parts, renders it capable of producing all kinds of grain and fruits, which the inhabitants are not wanting to improve. The temperate parts are ſown with wheat, barley, maize, and other grain; while the colder parts afford paſture to infinite numbers of cattle of all kinds. This province is alſo rich in ſilver mines; and as many of them are worked, they ſpread affluence all over the country. Beſides theſe important ſources of commerce, and that

of the cattle, the making of bays and other coarſe ſtuffs, profitably employ great numbers of Indians in moſt of its towns.

XII. The juriſdiction of Jouxa borders on the ſouthern extremity of the former, and begins about forty leagues eaſt of Lima, and extends forty more along the ſpacious valleys and plains between the two Cordilleras of the Andes. In the middle of it runs a large river, called alſo Jouxa, the ſource of which is in the lake of Chincay-Choca, in the province of Sarma. It is alſo one of the branches of the river of the Amazons. The whole juriſdiction of this province is divided into two parts by the river, and in both are ſeveral handſome towns, well inhabited by Spaniards, Meſtizos, and Indians. The ſoil produces plenty of wheat and other grain, together with a great variety of fruits. It has alſo a conſiderable ſhare of trade, being the great road to the provinces of Cuſco, Paz, Plata, and others to the ſouthward, here called Tiera de Ariba, or the Upper Country. Like the former, it borders eaſtward on the wild Indians of the mountains, but among which the order of St. Francis has eſtabliſhed ſeveral miſſions, the firſt being in the town of Ocopa. Within its dependances are ſeveral ſilver mines, ſome of which being worked, greatly increaſe the riches of this province.

XIII. The juriſdiction of Conchucos begins forty leagues north-north-eaſt of Lima, and extends along the center of the Cordillera; ſo that its air is different according to the height of the ſituation of its ſeveral parts, the mildeſt of which produce all kinds of grain and fruits, and the others, where the effects of the cold checks this fertility, afford paſture for cattle of all kinds. In this juriſdiction are great numbers of looms; the principal occupation of the Indians being ſeveral kinds of woollen manufactures, and theſe conſtitute the greateſt part of its commerce with other provinces.

XIV. The province of Guyalas, like the former, extends along the center of the Cordillera, beginning fifty leagues from Lima, and in the ſame direction as the other; this juriſdiction is large, and has different temperatures of air. The low parts produce grain and fruits, the upper abound in cattle and ſheep, which form the greateſt branch of their trade.

XV. The laſt is that of Guamalies, which, like the former, is ſituated in the center of the Cordillera, conſequently its air very different. This juriſdiction begins eighty leagues north-eaſt of Lima, and its ſituation being rather cold than temperate, few places are fertile in its whole extent, which is above forty leagues. The Indian inhabitants of the towns apply themſelves to weaving, and make a great variety of bays, ſerges, and other ſtuffs, with which they carry on a very conſiderable trade with the other provinces, deſtitute of ſuch manufactures.

The preceding provinces, together with the following in the audience of Lima, as in thoſe belonging to Charcas, are full of towns, villages and hamlets, inhabited by Spaniards, Meſtizos, and Indians; but with ſome difference, the number of Spaniards being greater in ſome, and in others that of the Indians. Many of them are indeed ſolely inhabited by the latter. The diſtance from the capital of the province, eſpecially to the towns ſituated on its frontiers, being ſo great, as to render it impoſſible for the corregidor to diſcharge his office every where with the neceſſary punctuality and attention, the province is divided into ſeveral diſtricts, conſiſting of three or four towns, more or leſs, according to their largeneſs and diſtance; and over theſe is placed a delegate.

Every ſettlement of any conſequence maintains a prieſt; and ſo commendable is their proviſion in this reſpect, that ſometimes two, three, or more ſmall places join to ſupport one, either alone or with a curate; ſo that ſome eccleſiaſtics have diſtant ſettlements under their care. Theſe incumbents are either ſeculars or regulars, according

to

to the right acquired by each of theſe claſſes, as having been employed in the converſion of the Indians immediately after the conqueſt.

CHAP. XII. — *Of the Provinces in the Dioceſes of Truxillo, Guamanga, Cuſco, and Arequipa.*

NORTH of the archiepiſcopal dioceſe of Lima, lies the biſhopric of Truxillo, and with it terminates on that ſide both the juriſdiction of that audience, and the viceroyalty of Peru: but the whole extent of this dioceſe is not under the juriſdiction of this audience, nor of that of the viceroy: for it alſo includes the government of Jaen de Bracamoros, which, as we have already obſerved, belongs to the province and audience of Quito. We ſhall therefore exclude it, and only give an account of the ſeven juriſdictions in the dioceſe of Truxillo belonging to the viceroyalty of Peru, and the audience of Lima.

Juriſdictions in the dioceſe of Truxillo:

I. Truxillo.
II. Sana.
III. Piura.
IV. Caxamarca.
V. Chachapayas.
VI. Llulia, and Chilloas.
VII. Pataz, or Caxamarquilla.

I. II. III. A ſufficient account having already been given (Chap. I. II.) of the juriſdictions of Truxillo, Sana, and Piura, it only remains to ſpeak of the other four.

IV. Caxamarca lies to the eaſtward of Truxillo, and its juriſdiction extends along a vaſt interval betwixt the two Cordilleras of the Andes. It enjoys a fertility of all kinds of corn, fruits, and eſculent vegetables; alſo cattle, ſheep, and eſpecially hogs, of which they ſell vaſt numbers to the farmers in the valleys, who, after fattening them with maize, ſend them to the markets in the great towns; particularly the farmers of the valley of Chincay and others, who derive a conſiderable trade in theſe creatures at Lima, Truxillo, and other flouriſhing places. The Indians throughout this juriſdiction weave cotton for ſhips' ſails, bed-curtains, quilts, and other uſes, which are ſent into the other provinces. Here are alſo ſome ſilver mines, but of little conſequence.

V. On the ſame ſide, but more towards the eaſt, lies the juriſdiction of Chachapayas. Its temperature is hot, being without the Cordilleras, and to the eaſtward its territories have a low ſituation. It is of great extent, but very thinly inhabited; and the products of the earth only ſuch as naturally flouriſh in ſuch a climate. The Indians here are very ingenious in making cottons, particularly tapeſtry, which, for the livelineſs of the colours and delicacy of the work, make an elegant appearance; theſe, together with the ſail-cloth, bring great profits to this country, being highly valued in the other provinces.

VI. South of Chachapayas, and alſo on the eaſt ſide of the Cordillera of the Andes, lies the juriſdiction of Llulla and Chilloas, which is low, warm and moiſt, and covered with woods, ſo that great parts of it are uninhabited. It borders on the river of Mayabamba, which, beginning its courſe from theſe ſouthern provinces of Peru, forms the river of the Amazons, as we have already obſerved. The principal commodity of this country is tobacco, which, with a particular kind of almonds called andes, and a few other fruits natural to its climate, form the commerce carried on by this province with the others.

VII. The laſt juriſdiction of this dioceſe is that of Pataz, or Caxamarquilla. From its different ſituations it has a variety of products; but is particularly remarkable for gold mines; its chief commerce conſiſting in exchanging that metal for current money, eſpecially ſilver coin, which is the more eſteemed here for its ſcarcity.

Guamanga the ſecond dioceſe:

The city of Guamanga, the capital of this dioceſe, was founded in the year 1539, by Don Franciſco Pizarro, on the ſite of an Indian village of the ſame name. The Spaniards added the name of San Juan del la Victoria, in memory of the precipitate retreat of Manco the Ynca, from Pizarro, who offered him battle. This city was founded for the conveniency of the trade carried on between Lima and Cuſco; for during this long diſtance, there was at that time no town, whence the travellers frequently ſuffered by the incurſions of Manco's army. This gave occaſion to building the city on the ſpot where the Indian village ſtood, though extremely inconvenient with regard to proviſions, as lying contiguous to the great chain of the Andes; but the war being happily terminated by the entire defeat of Manco's party, the city was removed to its preſent ſituation. Its juriſdiction, regulated at the time of its foundation, began at the frontiers of Jouxa, and reached to the bridge of Valcas; but at preſent it is bounded by the provinces which ſurround it, and contains the town of Anco, about three leagues from it: the city is ſituated on the declivities of ſome mountains not remarkable for their height, which, extending ſouthward, incloſe a ſpacious plain to the eaſtward of the town, watered by a ſmall ſtream deſcending from the neighbouring mountains; but the ground on which the city is built being higher than the breach through which the river flows, the inhabitants were obliged to provide themſelves with ſmall fountains. Among the number of inhabitants, Guamanga boaſts at leaſt of twenty noble families, who live in the center of the town, in ſpacious houſes of a conſiderable height, built partly of ſtone, and covered with tiles. Beſides the largeneſs of the apartments, they have extenſive gardens and orchards, though it is no ſmall difficulty to keep theſe in order, on account of the ſcarcity of water. The large Indian ſuburbs round the city add greatly to its extent, and the houſes though low are chiefly of ſtone, and roofed, which conſiderably augments the appearance of the city. This is indeed the general manner of building in the towns of this kingdom, remote from the coaſt.

The cathedral is very ſplendid, and its chapter, beſides the biſhop, conſiſts of a dean, archdeacon, chanter, two canons by compoſition, a penitentiary, and two prebendaries. It has a ſeminary for the ſervice of the church, under the title of St. Chriſtopher. The church of this ſeminary is that belonging to the pariſh of the Spaniards, and another dedicated to St. Ann, the pariſh-church of the Indians. Beſides theſe are the chapels of Carmenca, Belin, St. Sebaſtian, and St. John the Baptiſt, depending on it. The pariſh of Magdalena, inhabited by Indians, is under the care of the Dominicans, and the incumbent has the title of prieſt. The city has alſo an univerſity, with profeſſors of philoſophy, divinity, and law, and equal privileges with that of Lima, they being both royal foundations. The corporation is compoſed of the principal nobility of the city, at the head of which is the corregidor, and out of this body the alcaldes are choſen, to ſuperintend the civil and political government.

Within the walls of this city are the convents of St. Dominic, St. Francis, the fathers of Mercy, St. Auguſtine, St. Juan de Dios, a college of Jeſuits, an hoſpital of St. Francis de Paula. The nunneries are of the order of St. Clare, and the Carmelites; and a religious ſiſterhood.

The juriſdictions in the dioceſe of Guamanga, are

I. Guamanga.
II. Guanta.
III. Vilcas Guaman.
IV. Andogualas.
V. Guanca Belica.
VI. Angaraes.
VII. Caſtio Vineyna.
VIII. Parina-Cocha.
IX. Lucanas.

I. The juriſdiction of Guamanga enjoys in every part ſo good a temperature, that it abounds in variety of grain, fruit, and cattle, and is very populous. One part of its commerce conſiſts in bend-leather for ſoles of ſhoes, which are cut out here. Conſerves and ſweetmeats are here made in great quantity.

II. The juriſdiction of Guanta, which lies north-north-weſt of Guamanga, begins a little above four leagues from that city, and is in length about thirty leagues. It is very happy in the temperature of the climate, and fertility of the earth; but its ſilver mines, which were formerly very rich, are now greatly exhauſted. In an iſland formed by the river Jouxa, called in that country Tayacaxa, grows in remarkable plenty the caca already mentioned. This herb, and the lead produced from the mines of that metal in this country, are the branches of its commerce. It ſupplies the city of Guamanga with great part of its corn and fruits.

III. South-eaſt of Guamanga, and between ſix and ſeven leagues from that city, is Vilcas Guaman, which extends above thirty leagues. The greateſt part of this country lying in a temperate air, beſides a ſufficiency of corn and fruits, and eſculent vegetables, has very fine paſtures, in which are bred vaſt quantities of cattle of all kinds. The Indians in the towns of this juriſdiction apply themſelves to weaving bays, corded ſtuffs, and other branches of the woollen manufactory, which are carried to Cuſco, and other provinces; but this trade is rendered very laborious by the great diſtance of the ſeveral places. Here is ſtill remaining a fort built by the old Indians, and reſembles that already deſcribed, near the town of Cannar; at the town of Vilcas Guaman was another, very famous, but taken down in order to erect a church with the ſtones.

IV. Eaſt, a little inclining to the ſouth of Guamanga, is Andogualas, extending eaſtward along an intermediate ſpace between two branches of the Cordillera, above twenty miles, having the advantage of being watered by ſeveral ſmall rivers. Its climate is partly hot, and partly temperate, ſo that the ſoil, being watered by theſe ſtreams, produces all kinds of fruits and grain in great plenty; eſpecially maize, wheat, and ſugar-canes. This province is one of the moſt populous in all thoſe parts; in it the gentry of Guamanga have large ſugar plantations.

V. The government of Guanca Belica begins thirty leagues north of Guamanga. The town which gives name to this government was founded on account of the famous rich quickſilver mine; and to the working it, the inhabitants owe their whole ſubſiſtence, the coldneſs of the air checking the growth of all kinds of grains and fruits, ſo that they are obliged to purchaſe them from their neighbours. The town is noted for a water where ſuch large petrifactions are formed, that the inhabitants uſe them in building houſes, and other works. The quickſilver mines wrought here ſupply with that neceſſary mineral all the ſilver-mines of Peru; and notwithſtanding the prodigious quantities already extracted no diminution is perceived. Some attribute the diſcovery of theſe mines to a Portugueſe, called Henrique Garces, in the year 1566, who accidentally met an Indian with ſome pieces of cinnaber, called by the Indians, Ilimpi, and uſed in painting their faces. But others, among whom are Acoſta, Laett, and Eſcalona, ſay that the mines of Guanca Belica were diſcovered by a Navincopa, or Indian, and ſervant

vant to Amador Cabrera; and that before the year 1564, Pedro Contreras and Henrique Gárces had diſcovered another mine of the ſame kind at Patas. But however it be, the mines of Guanca Belica are the only ones now worked; and the uſe of quick-ſilver for aggregating the particles of ſilver began in the year 1571, under the direction of Petro Fernandes Velaſco. The mines of Guanca Belica immediately on the diſcovery were claimed in the King's name, and alternately governed by one of the members of the audienza of Lima, with the title of ſuperintendant, whoſe office expired at the end of five years, till in the year 1735, when Philip V. appointed a particular governor of theſe mines, with the ſame title of ſuperintendant, but thoroughly acquainted with the nature of extracting this mineral, having been employed in thoſe of the ſame nature in Spain; and by his economy the mines are worked with leſs charge, and will not be ſo ſoon exhauſted. Part of the quickſilver found here is ſold on the ſpot to the miners, and the remainder ſent to all the royal offices in the kingdom of Peru, for the more commodious ſupply of thoſe whoſe mines are at a great diſtance.

VI. The juriſdiction of Angaraes depends on the government of Guanca Belica, and begins about twenty leagues weſt-north-weſt of the city of Guamanga. Its territories reach above twenty leagues; its air is temperate, and it abounds in wheat, maize, and other grain and fruits, and alſo breeds vaſt droves of cattle of all kinds.

VII. Weſt of the city of Guamanga is the juriſdiction of Caſtio Vineyna. In ſome parts this province extends above thirty leagues, and has ſuch a variety of temperatures, that it produces every kind of grain and fruits. The heaths, which are the coldeſt parts, are frequented by a kind of ſheep called Vicunna, whoſe wool is the moſt conſiderable article of its commerce. This animal was alſo common in the provinces of Jouxa, Guanuco, and Chuquiabo, till the conqueſt of thoſe countries, when every one hunted them at pleaſure for the ſake of their wool, without reſtraint from the government, they became, as it were, exterminated in thoſe parts; now they are only to be found on the ſummits of mountains or the coldeſt heaths, where they are not caught without great difficulty

VIII. About twenty leagues ſouth of the city of Guamanga, is the juriſdiction of Parina-Cocha, which reaches about twenty-five leagues, and lies principally in ſo temperate an air, that the ſoil, beſides excellent paſtures, abounds in grain and fruits. It has alſo ſeveral mines both of ſilver and gold, which now produce more conſiderably than heretofore. Theſe valuable metals make the chief branch of its active commerce, its paſſive being the ſame as in the following juriſdiction.

IX. The juriſdiction of Lucanas begins about twenty-five or thirty leagues ſouth-weſt of Guamanga. Its temperature is cold and moderate. The parts of the former breed large droves of all ſorts of cattle; and thoſe of the latter are fertile in grain, herbs, and fruits. It alſo abounds in valuable ſilver mines, in which chiefly the riches of Peru conſiſt, and by that means made the center of a very large commerce; great numbers of merchants reſorting hither with their goods, and others for purchaſing ſuch proviſions as their own countries do not afford, for which they give in exchange ingots and pinnas of ſilver.

III. Dioceſe of the Audience of Lima. — Cuſco.

Of all the cities in Peru, Cuſco is the moſt ancient, being of the ſame date with the vaſt empire of the Yncas. It was founded by the firſt Ynca Mango Capac, as the ſeat and capital of his empire. Having peopled it with the firſt Indians who voluntarily ſubmitted to him, he divided it into two parts, which he called High and Low Cuſco, the former having been peopled by Indians which the emperor himſelf had aſſembled,

and

and the latter by thoſe whom his conſort Mama-Oello had prevailed upon to leave their wandering manner of life. The firſt forms the north, and the latter the ſouth part of the city. The houſes originally were low and ſmall like cottages; but as the empire increaſed, they aſſumed a new appearance; ſo that when the Spaniards landed in theſe parts, they were aſtoniſhed at the largeneſs and ſplendour of the city, eſpecially the magnificence of the temple of the ſun, the grandeur of the palaces of the Ynca, and the pomp and richneſs becoming the ſeat of ſo vaſt an empire. It was in the month of October 1534, when Don Franciſco Pizarro entered and took poſſeſſion of it in the name of Charles V. Emperor and King of Spain. This was followed by a ſiege of the Ynca Mango, who laid great part of it in aſhes, but without diſlodging the Spaniards.

This city ſtands in a very uneven ſituation on the ſides of the mountains, there being no other more convenient near it. On a mountain contiguous to the north part of the city are the ruins of that famous fort built by the Yncas for their defence; and it appears from thence, that the deſign was to incloſe the whole mountain with a prodigious wall, of ſuch conſtruction as to render the aſcent of it abſolutely impracticable to an enemy, and, at the ſame time, eaſily to be defended by thoſe within; in order to prevent all approach to the city. This wall was entirely of free-ſtone, and ſtrongly built, like all the other works of the Yncas, already deſcribed, but ſtill more remarkable for its dimenſions and the largeneſs of the ſtones, which are of different magnitudes and figures. Thoſe compoſing the principal part of the work are of ſuch prodigious dimenſions, that it is difficult to imagine how it was poſſible for the ſtrength of man, unaſſiſted by machines, to have brought them hither from the quarries. The interſtices formed by the irregularities of theſe enormous maſſes are filled with ſmaller, and ſo cloſely joined, as not to be perceived without a very narrow inſpection. One of theſe large ſtones is ſtill lying on the ground, and ſeems not to have been applied to the uſe intended, and is ſuch an enormous maſs, that it is aſtoniſhing to human reaſon to think by what means it could be brought thither. It is called La Canſada, or the Troubleſome, alluding probably to the labour of bringing it from the quarry. The internal works of this fortreſs conſiſt of apartments, and two other walls are chiefly in ruins, but the outward wall is ſtanding.

The city of Cuſco is nearly equal to that of Lima. The north and weſt ſides are ſurrounded by the mountain of the fortreſs, and others called Sanca: on the ſouth, it borders on a plain, on which are ſeveral beautiful walks. Moſt of the houſes are of ſtone, well contrived and covered with tiles, whoſe lively red gives them an elegant appearance. The apartments are very ſpacious, and finely decorated, the inhabitants being noted for their elegant taſte. The mouldings of all the doors are gilt, and the other ornaments and furniture anſwerable.

The cathedral of Cuſco, both with regard to materials, architecture, and diſpoſition, greatly reſembles that of Lima, but is a much ſmaller ſtructure. It is built entirely of ſtone, and the architecture is even thought to exceed it. The ſacriſty is called Nueſtra Senora del Triumpo, being the place where the Spaniards defended themſelves from the fury of the Indians, when ſurrounded by the army of the Ynca Mango; and, though the whole city was ſeveral times ſet on fire, the flames had no effect on this part; which was attributed to the ſpecial protection of the Holy Virgin. It is ſerved by three prieſts, one in particular for the Indians of the pariſh, and the other two for the Spaniards. Beſides this, Cuſco alſo contains eight other pariſhes; namely,

I. Belin.—II. The church of the general hoſpital, which has alſo its prieſt and its pariſh.—III. Santa Anna.—IV. Santiago.—V. San Blas.—VI. San Chriſtoval.—VII. San

San Sebaſtian.—VIII. San Geronymo. And though the firſt of the two laſt be a league, and the ſecond two leagues from the city, they are reckoned among the number of its pariſhes.

Here is alſo a convent of Dominicans, the principal walls of which were formerly thoſe of the temple of the ſun, and at preſent the high altar ſtands in the very place where once was a golden image of that planet. There is likewiſe at Cuſco a convent of Franciſcans, which is the head of that order in this province. The convents of the Auguſtines and the fathers of Mercy in this city, are alſo the principal of their reſpective orders. The Jeſuits have likewiſe a college here. The convent of St. Juan de Dios and that of the Bethlemites, which are both very large, are hoſpitals for the ſick; the latter is particularly appropriated to the Indians, who are there uſed with the greateſt care and tenderneſs. The nunneries are thoſe of St. Clare, St. Catherine, the barefooted Carmelites, and a Nazarene ſiſterhood.

The government of this city conſiſts of a corregidor, placed at the head of the magiſtrates, who are the chief nobility; and out of theſe are annually choſen two ordinary alcaldes, according to the cuſtom of all the cities in South America. The members of the cathedral chapter beſides the biſhop, are five dignitaries, namely, the dean, archdeacon, chanter, rector, and treaſurer; two canons by competition, a magiſtral, and penitentiary; three canons by preſentation, and two prebendaries. Here are three colleges; in the firſt, called St. Anthony, a ſeminary for the ſervice of the cathedral. are taught Latin, the ſciences, and divinity. The ſecond is under the direction of the Jeſuits, where theſe fathers inſtruct youths of fortune. The third, called St. Francis de Borja, belongs alſo to the Jeſuits, and is appointed for the education of the ſons of caciques, or Indian princes. The two former confer all degrees below that of doctor, and have been erected into univerſities.

Among the courts of juſtice, is one for the revenue, conſiſting of two judges. Here is alſo a court of inquiſition, and of the croiſade; together with the ſame offices as in the other large cities already deſcribed. Formerly this city was very full of Spaniards, and among them many noble families; but, at preſent, its inhabitants are very much declined.

Juriſdictions in the Dioceſe of Cuſco:

I. Cuſco.
II. Quiſpicanchi.
III. Avancay.
IV. Paucartambo.
V. Colcaylares.
VI. Chilques, and Maſques.
VII. Cotobamba.
VIII. Canas, and Cances, or Tinta.
IX. Aymaraes.
X. Chumbi-Vilcas.
XI. Lampa.
XII. Carabaya.
XIII. Aſangaro, and Aſilo.
XIV. Apolo-Bamba.

I. The juriſdiction of Cuſco extends two leagues; the temperature of air is various, but both the heat and cold very ſupportable, except in ſome parts where the cold is intenſe: theſe, however, afford good paſture for all kinds of cattle, whilſt the valleys produce plenty of grain and fruits.

II. The juriſdiction of Quiſpicanchi begins, as it were, at the ſouth gates of Cuſco, ſtretching from eaſt to weſt about twenty leagues. The lands belong, in general, to the gentry of Cuſco, and produce plenty of wheat, maize, and fruits. Here are alſo manufactories of bays, and coarſe woollen ſtuffs. Part of this province borders on the foreſts

foreſts inhabited by wild Indians, and produces great quantities of coca, which forms one of the principal branches of its commerce.

III. Four leagues north-eaſt from the city of Cuſco, begins the juriſdiction of Avancay, and extends above thirty leagues; the air differing in temperature according to the ſituation of its parts; but it is in general rather hot than temperate, and, accordingly, many parts of it are taken up with large plantations of canes, which yield a very rich ſugar. The lands where the air is more temperate, abound in wheat, maize, and fruits, part of which are ſent to the city of Cuſco. In this province is the valley Xaquijaguana, corruptly called Xajaguana, where Gonzalo Pizarro was defeated and taken priſoner by Pedro de la Gaſco.

IV. Paucartambo begins eight leagues eaſt of Cuſco, and is of a conſiderable extent. This province produced, in the time of the Yncas, the greateſt quantity of coca, with which it carried on a very profitable commerce; but is greatly declined ſince this ſhrub has been planted in other provinces. The ſoil is equally fertile in other products.

V. The juriſdiction of Calcaylares begins four leagues weſt of the city of Cuſco. The air every where excels that of all other provinces, and accordingly produces an exuberance of all kinds of grain and fruits. In the hotteſt parts called Lares, were formerly very large plantations of ſugar-canes, but for want of hands to cultivate them, they are at preſent ſo diminiſhed, that inſtead of ſixty or eighty thouſand arobas, which they annually produced in the time of their proſperity, they are now reduced to ſomething leſs than thirty; but the ſugar is of ſuch an excellent kind, that without any other preparation than that of the country, it is equal both in colour and hardneſs to the refined ſugar of Europe. This diminution of its ſugar has greatly leſſened the principal branch of its commerce.

VI. South-eaſt of Cuſco, and at the diſtance of about ſeven or eight leagues, begins the juriſdiction of Chilques and Maſques, extending above thirty leagues in length. The temperature of the air is proportioned to the ſituation of its ſeveral parts, ſome of which are very fertile in grain, and others feed vaſt numbers of cows and ſheep. But beſides theſe its commerce is greatly augmented by the woollen manufactures of the Indians.

VII. South-weſt of Cuſco, and about twenty leagues diſtance, begins the juriſdiction of Cotabamba, which afterwards extends above thirty leagues between the rivers Avancay and Apurimac, in which extent are different temperatures of air. It abounds in all kinds of cattle, and the temperate parts produce plenty of wheat, maize, and fruits. Here are alſo mines of ſilver and gold, the richneſs of which formerly rendered this province very flouriſhing; but, at preſent, their produce is greatly declined.

VIII. The juriſdiction of Canas and Canches or Tinta, begins about fifteen or twenty leagues ſouth of Cuſco, and extends about twenty leagues in every direction. The Cordillera divides it into two parts; the higheſt called Canas and the loweſt Canches. The latter, by reaſon of its temperate air, yields all kinds of grains and fruits; whilſt the former affords paſture for very numerous flocks and herds; and in the meadows between the eminences are fed no leſs than twenty-five or thirty thouſand mules, brought thither from Tucuma to paſture. Here is a very great fair for theſe creatures, to which dealers reſort from all parts of the dioceſe. In the part called Canas is the famous ſilver mine Condonoma.

IX. About forty leagues ſouth-weſt from Cuſco is the juriſdiction of Aymaraes, which extends thirty farther, and like the former has different temperatures of air. The lands abound in ſugar, cattle, and grain; and alſo in mines of gold and ſilver, which

formerly produced large quantities of thoſe valuable metals; but at preſent few of them are wrought, the country being too thinly inhabited.

X. Something more than forty leagues from Cuſco, begins the juriſdiction of Chumbi Vilcas, which in ſome parts extends above thirty leagues, has different temperatures of air, great quantities of corn and fruits, and large herds of cattle; together with ſome mines of ſilver and gold.

XI. The juriſdiction of Lampa begins thirty leagues ſouth of Cuſco, and is the principal of all the provinces included under the name of Callao. Its plains are interrupted with ſmall hills, but both abound in good paſture; and accordingly this province is particularly remarkable for its quantity of cattle, with which it carries on a very profitable trade; but the air being every where cold, the only fruits of the earth are papas and quincas. Another very conſiderable advantage are its ſilver mines, being very rich, and conſtantly worked.

XII. The juriſdiction of Carabaya begins ſixty leagues ſouth-eaſt of Cuſco, and extends above fifty leagues. The greateſt part of it is cold, but the valleys ſo warm as to produce coca, and abounds in all kinds of fruits, grain, and pulſe, together with ſufficient paſtures for cattle of all kinds. Here are ſeveral gold mines, and the two famous lavatories, called Lavaderos de San Juan del Oro, and Pablo Coya; alſo that of Monte de Ananea, two leagues from the town of Poto, where there is an office for collecting the quintos or fifth, belonging to the king. In this province alſo is a river, which ſeparates it from the mountains of the wild Indians, and is known to abound ſo greatly in gold, that at certain times the caciques ſend out a certain number of Indians in companies from the towns in their reſpective diſtricts to the banks of this river, where by waſhing the ſands in ſmall wells they dig for that purpoſe, they ſoon find a ſufficient quantity of gold to pay the royal tribute. This kind of ſervice they call chichina. This province has alſo mines of ſilver, which produces vaſt quantities of that metal. In 1713 was diſcovered in the mountain of Ucuntaya a vein or ſtratum nearly of ſolid ſilver, which, though ſoon exhauſted, yielded ſome millions, and hopes have been conceived from it of meeting with others, whoſe riches will be of longer continuance. This juriſdiction is alſo famous for the gold mine called Aporama, which is very rich, and the metal twenty-three carats fine.

XIII. The juriſdiction of Aſangaro and Aſilo, which lies about fifty leagues ſouth of Cuſco, is every where cold, and conſequently proper only for breeding cattle, in which, however, it carries on a very profitable trade. In the north-eaſt parts which border on thoſe of Caravaya, are ſome ſilver mines, but a few of them only are worked. Some of its lands produce plenty of thoſe roots and grains which naturally flouriſh in a cold air, as papas, quinoas, and canaguas; of the two laſt the natives make chica in the ſame manner as it is made with maize. This juriſdiction belongs to the audience of Charcas.

XIV. About ſixty leagues from Cuſco, on the borders of the Moxos, which are miſſions of the Jeſuits, are others called Apolo-bamba, belonging to the Franciſcans. Theſe conſiſt of ſeven towns of Indians newly converted, and who having received the doctrine of the goſpel, have abandoned the ſavage manner in which they formerly lived. In order to render the miſſionaries more reſpected by the Indians, and at the ſame time to defend the latter from the inſults of their idolatrous brethren, a major general is poſted here, who is both a civil and military officer, adminiſtering juſtice, and commanding in chief the ſeveral bodies of militia formed by the inhabitants of theſe towns and villages.

IV. Dioceſe of the Audience of Lima. — Arequipa.

The city of Arequipa was founded in 1539 by order of Don Franciſco Pizarro, in a place known by the ſame name: but this ſituation being found very diſadvantageous, the inhabitants obtained permiſſion to remove it to the valley of Quilca, where it at preſent ſtands, about twenty leagues diſtant from the ſea. The lands in its dependency having been united to the empire of the Yncas by Maita Capac, the goodneſs of the ſoil and the purity of the air, induced that monarch, for the farther improvement of the country, to draw three thouſand families from ſuch adjacent provinces as were leſs fertile, and with theſe to people four or five towns.

This city is one of the largeſt in all Peru, delightfully ſituated in a plain, and the houſes well built of ſtone, and vaulted. They are not all of an equal height, though generally lofty, but commodious, finely decorated on the outſide, and neatly furniſhed within. The temperature of the air is remarkably good: and though ſometimes a ſmall froſt is ſeen, the cold is never exceſſive, nor the heat troubleſome; ſo that the fields are always cloathed with verdure and enamelled with flowers, as in a perpetual ſpring. The inhabitants enjoy an exemption from many diſeaſes common to other countries, partly owing to their care in keeping the ſtreets clean by means of canals which extend to a river running near the city; and by theſe all the filth of the city is ſwept away.

But theſe pleaſures and advantages are allayed by the dreadful ſhocks of earthquakes, to which, in common with all thoſe parts of America, it is ſo ſubject, that it has been four times by theſe convulſions of nature laid in ruins; beſides other ſmall ſhocks not attended with ſuch terrible conſequences. The firſt of thoſe was felt in 1582, the ſecond on the 24th of February 1600, which was accompanied with an eruption of a volcano called Guayna-Patina, in the neighbourhood of the city: the third happened in 1604, and the laſt in 1725. And though the deſolation attending the three laſt was not ſo univerſal, yet the public buildings, and the moſt ſtately houſes, were laid in ruins.

The city is very populous, and among its inhabitants many noble families, this being the place where moſt of the Spaniards ſettled, on account of the goodneſs of the air, and the fertility of the ſoil; as alſo for the conveniency of commerce at the port of Aranta, which is only twenty leagues diſtant. The civil, political, and military government of the city is executed by a corregidor, who is placed at the head of the regidores, from which are annually choſen two ordinary alcaldes.

The city of Arequipa did belong to the dioceſe of Cuſco, till the year 1609, when it was erected into a particular biſhopric on the 20th of July. The chapter, beſides the biſhop, conſiſts of the five uſual dignitaries, namely, the dean, archdeacon, chanter, rector, and treaſurer: three canons and two prebends. Beſides the ſacriſty, which is ſerved by two prieſts for the Spaniards, the pariſh of Santa Martha is appropriated to all the Indian inhabitants. Here are two Franciſcan convents, one of obſervants, and the other of recollects, both belonging to the province of Cuſco; alſo one of Dominicans, and another of Auguſtines, depending on Lima; and a monaſtery of the fathers of Mercy, ſubordinate to that of Cuſco. Under their reſpective fraternities of Lima here is alſo a college of Jeſuits, and a convent and hoſpital of St. Juan de Dios. Here is a ſeminary for the ſervice of the cathedral; and two nunneries; namely, one of the Carmelites, and the other of St. Catharine. A third is now building for the order of Santa Roſa. There is alſo at Arequipa an office of revenue, under the

direction of an accomptant and treaſurer; together with commiſſaries of the inquiſition and croiſades, with their ſubalterns, as in all the other cities.

Juriſdictions in the Dioceſe of Arequipa.

I. Arequipa.
II. Camana.
III. Condeſuyos de Arequipa.
IV. Caylloma.
V. Monquegua.
VI. Arica.

I. Arequipa comprehends the ſuburbs and towns in its neighbourhood, where the climate being the ſame as in the city, the country is perpetually covered with flowers, corn, and fruits; while the excellence of the paſtures is ſufficiently evident from the numbers of fine cattle fed in them.

II. Along the coaſt of the South Sea, but at ſome diſtance from the ſhore, is the juriſdiction of Camana, which is very large, but contains many deſerts, eſpecially along the coaſt. Eaſtward it extends to the borders of the Cordillera; ſo that the temperature of ſome parts of its juriſdiction is nearly the ſame with that of the former, while others are cold; both producing grain and fruits of a correſponding nature. Its principal trade conſiſts in aſſes. It has ſilver mines near the mountains, but of little advantage, as they are not worked.

III. North of Arequipa and thirty leagues diſtant from that city, is the juriſdiction of Condeſuyos de Arequipa, extending about thirty leagues, with different temperatures of the air, and conſequently produces grains and fruits. Here is bred the wild cochineal, with which the Indians carry on a kind of trade with thoſe provinces where the woollen manufactures flouriſh. They firſt pulverize the cochineal by grinding, and after mixing four ounces of it with twelve of violet maize, they form it into ſquare cakes called mango, each weighing four ounces, and ſell it for a dollar per pound. This country abounds in gold and ſilver mines; but they are not worked with the care and diligence of former times.

IV. At about thirty leagues eaſt from the city of Arequipa, begins Caylloma, famous for a mountain of the ſame name, and the ſilver mines it contains. Though theſe mines have been long diſcovered and conſtantly and induſtriouſly worked, their produce is ſtill ſo inconſiderable, that in the principal village, called by the ſame name, there is a governor and office appointed for receiving the king's fifths, and vending the quickſilver uſed in ſeparating the metal from the ore. The cold in the greateſt part of the country is ſo intenſe, that the inhabitants are obliged to have recourſe to the neighbouring provinces for the fruits of the earth. Even the declivities of mountains and valleys produce but little. In ſome parts of this province are wild aſſes, like thoſe already mentioned.

V. The juriſdiction of Monquegua lies about forty leagues ſouth of the city of Arequipa, and ſixteen from the coaſt of the South Sea. The principal town, which bears the ſame name, is inhabited by Spaniards, and among them ſeveral noble and opulent families. This juriſdiction extends at leaſt forty leagues in length, and in a happy climate, adorned with large vineyards, from the produce of which great quantities of wine and brandy are made; theſe conſtitute its whole commerce, ſupplying all the provinces bordering on the Cordilleras as far as Potoſi, by land carriage; while they are exported by ſea to Callao, where they are greatly valued. Here are alſo papas and olives.

VI. The

VI. The laſt juriſdiction of this dioceſe is Arica, which extends along the coaſt of the South Sea. Beſides the heat, and inclemency of the air, the greateſt part of the country is barren, producing only aji, or Guinea-pepper, from which alone it derives a very advantageous trade, as may eaſily be imagined from the vaſt conſumption of it in all theſe parts of America. Accordingly the dealers in this commodity reſort thither from the provinces on the other ſide of the mountains, and by computation, the annual produce of theſe plantations amounts to no leſs than 600,000 dollars per annum. The pods of this pepper are about a quarter of a yard in length, and when gathered are dried in the ſun, and packed up in bags or ruſhes, each bag containing an aroba, or quarter of a hundred weight; and thus they are exported to all parts of the kingdom, and uſed as an ingredient in moſt of their diſhes. Other parts of this juriſdiction are famous for vaſt quantities of large and excellent olives, far exceeding the fineſt produced in Europe, being nearly as large as a hen's egg. They extract ſome oil from their olives, and find a good market for it in the provinces of the Cordillera; others are pickled, and ſome, together with a ſmall quantity of oil, exported to Callao.

CHAP. XIII. — *Of the Audience of Charcas.*

THE province of Charcas, in the extent of its juriſdiction, is equal to that of Lima; but with this advantage, that many of its parts are not ſo well inhabited, ſome being full of vaſt deſerts and impenetrable foreſts; while others are full of vaſt plains, intercepted with the ſtupendous heights of the Cordilleras, ſo that it is inhabited in thoſe parts only which are free from theſe inconveniences. The name of Charcas formerly included many populous provinces of Indians, whom the Ynca Capac Yupanqui ſubjected to his empire; but he carried his arms no farther than the provinces of Tutyras and Chaqui, where he terminated his conqueſts towards Callaſuyo. On the death of this monarch, his ſon, Ynca Roca, the ſixth in the ſucceſſion of thoſe emperors, puſhed his conqueſts farther in the ſame part, till he became ſovereign of all the intermediate nations to the province of Chaquiſaca, where was afterwards founded the city of Plata, at preſent the capital of the whole province of Charcas. Its juriſdiction begins on the north ſide, at Vilcanota, belonging to the province of Lampa in the dioceſe of Cuſco, and reaches ſouthward to Buenos Ayres. Eaſtward it extends to Braſil, being terminated by the meridian or demarcation; and weſtward part of it reaches to the South Sea, particularly at Atacama, the moſt northern part of it on this ſide. The remainder of Charcas borders on the kingdom of Chili. Theſe vaſt tracts of the land give one archbiſhop, and five biſhops his ſuffragans, namely,

The archbiſhop of Plata.

Biſhoprics:

I. La Pas.
II. Santa Cruz de la Sierra.
III. Tucuman.
IV. Paraguay.
V. Buenos Ayres.

Archbiſhopric of the Audience of Charcas, or Chuquiſaca. — La Plata.

The Spaniards having conquered all the provinces between Tumbez and Cuſco, and quelled the tumults formed among the conquerors themſelves, turned their thoughts on

on reducing the more remote nations. Accordingly in the year 1538, Gonzalo Pizarro, and other commanders, marched from Cuſco at the head of a large body of troops, and, advancing as far as Charcas, were oppoſed by the nations inhabiting this country, and the Carangues, with ſuch vigour, that it was not till after ſeveral obſtinate battles that they ſubmitted. But their reſiſtance did not equal that made by the Chuquiſacans; for Pizarro having, after ſeveral actions, penetrated to their principal town, they beſieged him in it, and the danger was ſo great, that without the ſpeedy ſuccours ſent him from Cuſco by his brother the Marquis Don Franciſco Pizarro, the few Spaniards who ſurvived the former actions would have been all cut off. But on the arrival of this reinforcement, among which were a great number of volunteers of diſtinction, he routed the Indians, who, being no longer able to continue the war, ſubmitted, and acknowledged the ſovereignty of the King of Spain. In the following year 1539, Pizarro, convinced of the importance of making a ſtrong ſettlement there, commiſſioned Captain Pedro Anzures to build a town, which was accordingly done on the ſite of that of Chuquiſaca, and great numbers of thoſe who had ſhared in the conqueſt, continued there in order to ſubdue the other contiguous nations. This town they called Plata, alluding to the ſilver mines of the mountain of Porco in its neighbourhood, and from which the Yncas received great quantities of ſilver, keeping in pay a proper number of Indians for working them; but the primitive name of Chuquiſaca has prevailed, and is now commonly uſed. This city ſtands in a ſmall plain environed by eminences which defend it from the winds. The temperature of the air in ſummer is very mild; nor is there any conſiderable difference throughout the year; but in the winter, which here begins in September and continues till March, tempeſts of thunder and lightning are very common, and the rains of long continuance; but all the other parts of the year the atmoſphere is bright and ſerene. The houſes both in the great ſquare and thoſe adjoining to it have one ſtory beſides the ground floor. They are covered with tiles, are very roomy and convenient, with delightful gardens planted with the fruits of Europe. But water is ſo ſcarce that they have hardly enough to ſupply the neceſſary purpoſes of life: the little they have being fetched from ſeveral public fountains diſperſed in different parts of the city. The inhabitants conſiſt of Indians and Spaniards, and are ſaid to amount to about 14,000.

The cathedral is large, and divided into three aiſles, of good architecture, and finely adorned with paintings and gildings. The pariſh is ſerved by two prieſts, one for the Spaniards, and the other for the Indians. Here is alſo another pariſh called St. Sebaſtian, ſituated at one end of the city, and is appropriated to the Indians living within its precinct, who are thought to be about three thouſand. The convents are thoſe of the Franciſcans, Dominicans, Auguſtines, the fathers of Mercy, and a college of Jeſuits; all ſpacious buildings with ſplendid churches. Here is alſo a conventual hoſpital of St. Juan de Dios, the expences of which are defrayed by the King; likewiſe two nunneries, of the order of St. Clare, and of St. Monica.

The city of La Plata has alſo an univerſity, dedicated to St. Francis Xavier, the chairs of which are filled indifferently either by ſecular clergy or laymen; but the rector is always a Jeſuit. Here are alſo two other colleges in which lectures of all kinds are read. That of St. John is under the direction of the Jeſuits; while the archbiſhop nominates to that of St. Chriſtopher, which is a ſeminary.

Two leagues from Plata runs the river Cachimay along the plains, having on its banks ſeveral pleaſant ſeats of the inhabitants; and about ſix in the road leading to Potoſi, is the river of Philco-mayo, which is paſſed over by a large ſtone bridge.

During

During ſome months of the year, this river furniſhes the city of Plata with great plenty of delicious fiſh; among which is one called the Dorado *, which generally weighs between twenty and twenty-five pounds. The other proviſions, as bread, fleſh, and fruits, are brought from the adjacent provinces.

The chief tribunal in Plata is that of the audience, erected in the year 1559, and whoſe preſident has the titles of governor and captain-general of the province, excluſive of the government of Santa Cruz de la Sierra, Tucuman, Paraguay, and Buenos Ayres, which are independent, and in military caſes abſolute. It has alſo a fiſcal, a protector-fiſcal of the Indians, and two ſupernumerary auditors.

The magiſtracy or corporation, as in all other cities of this country, conſiſts of regidores, who are perſons of the firſt diſtinction, with the corregidor at their head, and from them are annually choſen two ordinary alcaldes, for maintaining order and the police. Plata was erected into a biſhopric in 1551, the place having then the title of city; and in the year 1608, was raiſed to a metropolis. Its chapter conſiſts of a dean, archdeacon, chanter, treaſurer, and rector; five canons, four prebendaries, and four minor prebendaries. The archbiſhop and his chancellor conſtitute the eccleſiaſtical tribunal.

Here is alſo a tribunal of croiſade, with a commiſſary, ſubdelegate, and other officers: likewiſe a court of inquiſition ſubordinate to that of Lima, and an office for taking care of the effects of perſons dying inteſtate; all eſtabliſhed on the ſame foundation with thoſe in other cities already mentioned.

The juriſdictions belonging to the archbiſhopric of Plata, are the fourteen following:

I. The city of Plata, and imperial town of Potoſi.
II. Tomina.
III. Porco.
IV. Tarija.
V. Lipes.
VI. Amparaes.
VII. Oruro.
VIII. Pilaya and Paſpaya.
IX. Cochabamba.
X. Chayantas.
XI. Paria.
XII. Carangas.
XIII. Cuacica.
XIV. Atacama.

I. The juriſdiction of the city of Plata is of ſuch prodigious extent as to include the imperial town of Potoſi, which is even the continual reſidence of the corregidor. There alſo is eſtabliſhed the office of revenue, which conſiſts of an accountant and treaſurer, with clerks; as moſt convenient on account of its vicinity to the mines, for taking account of the ſilver produced by them.

The famous mountain of Potoſi, at the foot of which, on the ſouth ſide, ſtands the town of the ſame name, is known all over the commercial world, as having been greatly enriched by the ſilver it produces. The diſcovery of theſe immenſe mines happened in the year 1545, by an accident ſeemingly fortuitous. An Indian, by ſome called Gualca, and by others Hualpa, purſuing ſome wild goats up this mountain, and coming to a part very ſteep, he laid hold of a ſmall ſhrub in order to climb it with the greater celerity; but the ſhrub being unable to ſupport his weight came up by the roots, and diſcovered a maſs of fine ſilver, and at the ſame time he found ſome lumps of the ſame metal among the clods, which adhered to the roots. This Indian, who

* This is a large ſpecies of the Dolphin, which, without plenty of good ſauce, is very dry eating. A.

lived

lived at Porco, haſtened home with theſe firſt fruits of his diſcovery, waſhed the ſilver and made uſe of it, repairing, when his ſtock was near exhauſted, to this perpetual fund. At length an intimate friend of his, called Guanca, obſerving ſuch a happy change in his circumſtances, was deſirous of knowing the cauſe, and urged his queſtions with a warmth that Gualca was unable to deny. For ſome time they retired in concert to the mountain for freſh ſupplies of ſilver, till Gualca, refuſing to diſcover his method of purifying the metal, Guanca revealed the whole ſecret to his maſter Villarroel, a Spaniard, who lived at Porco. Immediately on this information he went, on the 21ſt of April 1545, to view this fortunate breach in the mountain, and the mine was without delay worked, with immenſe advantage.

This firſt mine was called the Diſcoverer, as having been the occaſion of diſcovering other ſources of riches encloſed in the bowels of this mountain; for in a few days another was found equally rich, and called the Tin-mine; ſince that, another has been diſcovered, and diſtinguiſhed by the name of Rica, as ſurpaſſing all the reſt: and was ſucceeded by the Mendieta. Theſe are the principal mines of Potoſi, but there are ſeveral ſmaller, croſſing the mountain, on all ſides. The ſituation of the former of theſe mines is on the north ſide of the mountain, their direction being to the ſouth, a little inclining to the weſt; and it is the opinion of the moſt intelligent miners in this country, that thoſe which run in theſe directions are the richeſt.

On a report of theſe important diſcoveries, people from all parts retired to Potoſi, particularly from the city of Plata, which is ſituated about twenty-five leagues from the mountains; ſo that at preſent, beſides its extraordinary riches, having among its inhabitants many noble families, particularly thoſe concerned in the mines, the circuit of the town is near two leagues. The air of the mountain being extremely cold and dry*, renders the adjacent country remarkably barren, producing neither grain, fruits, herbs, or other eſculents. The town, however, is ſo plentifully provided as to enjoy an abundance of every kind; and the trade for proviſions is greater here than in any other place, that of Lima alone excepted. Nor will this appear at all ſtrange if the great number of people employed in the mines be conſidered. Some provinces ſend the beſt of their grain and fruits; others their cattle; others their manufactures; and thoſe who trade in European goods reſort to Potoſi, as to a market where there is a great demand, and no want of ſilver to give in exchange.

Beſides this commerce, here are a ſet of perſons called Aviadores, who find their account in advancing to the maſters of the mines coined ſilver to pay their neceſſary expences, receiving in exchange ſilver in ingots and pinnas. Another article of great conſequence, is the trade of quickſilver for the uſe of theſe mines; but this branch the crown has reſerved to itſelf. The vaſt conſumption of this mineral may in ſome meaſure be conceived by the great quantity of ſilver produced by theſe mines; for before the invention of extracting the ſilver with leſs mercury, a mark of that mineral was conſumed in obtaining a mark of fine ſilver; and often by the ignorance of the workmen, a ſtill greater quantity; but the immenſe conſumption of quickſilver in the mines of this mountain, and the riches extracted from it, will beſt appear from the following accounts of two authors, who were perfectly maſters of the ſubject. The firſt is that of the Rev. Alonzo Barba, pariſh-prieſt in the imperial town of Potoſi, who, in a piece on metals, publiſhed in the year 1637, ſays, that from the year 1574, when mercury was firſt uſed here in extracting the ſilver, the royal office of Potoſi has received above 204,700 quintals of mercury, excluſive of what had been clandeſtinely

* The extremeſt cold in this part ſeldom freezes the waters thicker than a half crown.

bought by private perſons, and which amounted to no ſmall quantity. And as this was conſumed in the ſpace of ſixty-three years, the annual amount is about 3,249 quintals. The ſecond account is given us by Don Gaſper de Eſcalona, who, in his Gazophilacio Perubico, declares, from very good authority, that before the year 1638, it appeared by the public accounts, that the produce of the ſilver amounted to 395,619,000 dollars, which, in ninety-three years, the time it had then been diſcovered, amounted to 41,255,043 dollars per annum. Hence an idea may be formed of the vaſt commerce which has for many years been carried on in this town, and which is ſtill like to continue for a long time; ſuch enormous ſums being annually bartered for goods ſent hither, its whole trade conſiſting in ſilver extracted from this mountain; and if ſome diminution has been perceived in its produce, it is ſtill very conſiderable.

At a ſmall diſtance from Potoſi, are the hot medicinal baths, called Don Diego, whither, as in other countries, ſome reſort for health, and others for diverſion.

The juriſdiction of Tomina begins about eighteen leagues ſouth-eaſt from the city of Plata, and borders eaſtward on a nation of wild Indians, called Chiriguanos. The climate is hot, and conſequently its products are ſuch as are common to hot countries. Some parts have vineyards, and in others are made conſiderable quantities of ſugar. It abounds alſo in cattle and ſheep. The extent in ſome parts is near forty leagues. The vicinity of the Chiriguanos is a continual uneaſineſs to the towns in this juriſdiction, and even to the city of Plata itſelf, they having more than once attempted to ſurpriſe it.

III. The juriſdiction of Porco begins at the weſt ſide of the town of Potoſi, and about twenty-five leagues diſtance from the city of Plata; extending about twenty farther. The coldneſs of its ſituation occaſions a ſcarcity of grain and fruits; but, on the other hand, it abounds in fine cattle of all ſorts. In this juriſdiction is the mountain of Porco, whence it has its name, and from whoſe mines the Yncas, as I have already obſerved, extracted all the ſilver for their expences and ornaments; and accordingly was the firſt mine worked by the Spaniards after the conqueſt.

IV. About thirty leagues ſouth of Plata lies the juriſdiction of Tarija, or Chicas, the greateſt extent of which is about thirty-five leagues. The temperature of the air is various, being in ſome parts hot, and in others cold; whence it has the advantage of corn, fruits, and cattle. This country every where abounds in mines of gold and ſilver, and eſpecially that part called Chocayas. Between this province and the country inhabited by wild Indians, runs the large river Tipuanys, the ſands of which, being mixed with gold, are waſhed like thoſe of the river Caravaga, already mentioned.

V. In the ſame part as the former, but with a ſmall inclination towards the ſouth-weſt, is the juriſdiction of Lipes, and extends alſo thirty-five leagues. The air is extremely cold, ſo that grain and fruit thrive very little here, but it abounds in cattle, particularly thoſe natural to the country, as the vicuna, alpaca, or taruga, and the llama. It muſt, however, be obſerved, that theſe creatures are common to all the other provinces of Punas, that is, to thoſe where the heaths and mountains are of ſuch a height, as to render the air continually cold. Here are alſo mines of gold, but at preſent forſaken, though the remains of the old works are ſtill viſible, particularly in one of the mountains near Colcha, known by the name of Abetanis, which, in the Indian language, ſignifies a golden mine. That of St. Chriſtopher de Acochala was formerly one of the moſt famous in all Peru for the richneſs of its ſilver mines, the metal being in ſome parts cut out with a chiſſel, but now very greatly declined; which may, in a great meaſure, be imputed to a want of people for working them: it

being highly probable that the ſame work would ſtill produce nearly an equal quantity of that valuable metal.

VI. The juriſdiction of Amparaes begins at a little diſtance to the eaſtward of the city of Plata, and is terminated on the eaſt by the juriſdictions belonging to the dioceſe of Santa Cruz de la Sierra, particularly on that of Miſquepocona; and the corregidor of the province of Amparaes has the cognizance of the Indian inhabitants of Plata. Its warm parts abound in grain, particularly barley, which, together with the numerous droves of cattle in the colder parts, conſtitute the chief branches of its trade.

VII. North-weſt of Plata is the province of Oruro, whoſe capital San Phelipe de Auſtria de Oruro is thirty leagues diſtant from it. The greateſt part of this juriſdiction is ſo cold as to deny it any eſculent vegetables; but on the other hand it feeds numerous flocks and herds, beſides great numbers of cattle peculiar to the country, as vicunas, guanacos, and llamas. Here are alſo many gold and ſilver mines; the former, though known even in the time of the Yncas, have been ſeldom worked; but thoſe of ſilver have yielded great riches to the inhabitants of the province. They are now however, according to all appearance, under an irremediable decay, being overflowed, and all the endeavours hitherto uſed, in order to drain them, have proved ineffectual; ſo that thoſe of any conſideration at preſent are in the mountains of Popo, about twelve leagues from the town, which is large and very populous from the trade carried on there with the mines. It has a revenue office for collecting the fifths belonging to the crown.

VIII. The province of Pilaya and Paſpaya, or Cinti, lies ſouth of Plata, diſtance about forty leagues. The greateſt part of its juriſdiction being among the breaches of the mountains, is the better adapted for producing all kinds of grain, pulſe, and fruits; which, with the great quantity of wine made here, enable it to carry on a very lucrative commerce with the other provinces, which are not ſo happily ſituated.

IX. The province of Cochabamba lies fifty leagues ſouth-eaſt of Plata, and fifty-ſix from Potoſi. Its capital is one of the moſt conſiderable cities in Peru, with regard to largeneſs, and the number and wealth of its inhabitants. The province in ſome directions extends above forty leagues. Beſides the ſituation of the city in a moſt fertile plain, the whole country is ſo fertilized by the many rivers and ſtreams, which every where traverſe it, that this province is eſteemed the granary of the whole archbiſhopric, and even of the dioceſe De la Paz. The air alſo is in moſt parts very mild and pure; and in ſome ſpots ſilver mines have been diſcovered.

X. About fifty leagues north-weſt from the city De la Plata, lies the province of Chayanta, extending in ſome parts about forty leagues. This country is very famous for its gold and ſilver mines. The former are indeed at preſent diſcontinued, though the ancient ſubterraneous paſſages are ſtill open. This province is watered by the river Grande, in whoſe ſand conſiderable quantities of gold duſt, and grains of that metal, are found. The ſilver-mines are ſtill worked to great advantage; but with regard to cattle, this province feeds no more than are barely ſufficient for its inhabitants.

XI. The contiguous province to that of Chayanta, on the north-weſt ſide of Plata, and ſeventy leagues diſtant from that city, is that of Paria, the extent of which is about forty leagues. The air here is cold, ſo that it produces little grain, which is in ſome meaſure compenſated by the great plenty of cattle of all kinds; and the cheeſes made here, both from the milk of ſheep and cows, are ſo highly eſteemed, that they are ſent into every part of Peru: it has alſo ſome ſilver-mines. The name of this province is derived from a very large lake, being an arm of that prodigious collection of waters called Titi-caca, or Chucuito.

XII. The

XII. The province of Carangas begins ſeventy leagues weſt from the city of Plata, and extends above fifty leagues. The climate of this juriſdiction is ſo cold, that the only eſculent vegetables here are the papa, quinoa, and canagua; but it abounds in cattle. Here are a great number of ſilver-mines conſtantly worked; among which that named Turco is very remarkable for a ſort of ore termed by miners machacado; the fibres of the ſilver forming an admirable intertexture with the ſtone in which they are contained. Mines of this kind are generally the richeſt. Beſides this there are others in this juriſdiction, which, if not richer, are equally remarkable; and theſe are found in the barren ſandy deſerts extending towards the coaſt of the South Sea. And here, only by digging in the ſands, are found detached lumps of ſilver, not mixed with any ore or ſtone than what adheres in ſome parts to the metal. Theſe lumps are called papas, being taken out of the ground, in the ſame manner as that root. It is doubtleſs very difficult to account for the formation of theſe maſſes of ſilver in a barren and moveable ſand, remote from any ore or mine. Two conjectures may, however, be offered. The firſt by admitting the continual reproduction of metals, of which there are indeed here ſo many evident proofs; as the matrices of gold and ſilver, met with in many parts of this kingdom. Nay, the very mines themſelves, after being long forſaken, have again been worked with great advantage; but the ſkeletons of Indians found in old mines, and covered with fibres of ſilver, and the inward parts alſo full of the ſame metal, ſeem to put the matter beyond diſpute. If this be admitted, it is natural to conclude, that the primordial matter of ſilver is firſt fluid, and when it has acquired a certain degree of perfection, ſome parts of it are filtrated through the pores of the ſand, ſtill ſtopping in a place proper for completing the fixation; they there form a ſolid congeries of ſilver; and being joined with thoſe earthy particles they collected in their courſe to the place where they were abſorbed by the pores of the ſand, conſolidated with the ſilver.

Though this conjecture be not deſtitute of probability, yet I am more inclined to embrace the ſecond, as it is, in my opinion, more ſimple and natural. Subterraneous fires being very common in theſe parts of America, as I have already obſerved in ſpeaking of the earthquakes, their activity is doubtleſs ſo ſtrong as to melt any metals depoſited near the places where they begin; and to communicate to them a heat ſufficient for keeping them a long time in a ſtate of fuſion; and hence a portion of ſilver thus melted neceſſarily ſpreads, and introduces itſelf through the larger pores of the earth, and continues to expand itſelf, till, being beyond the reach of heat, it fixes, and re-aſſumes its former conſiſtency, together with other heterogeneous ſubſtances collected in its paſſage. To this hypotheſis, two objections may be offered; one, that the metal in fuſion, by changing its ſituation, muſt be expoſed to the cold air, and conſequently ſoon condenſe. The ſecond, that the pores of the earth being extremely minute, particularly in a ſandy ſoil, the ſilver ſhould rather be found in filaments, or fine ramifications, than in large lumps or pieces, as is really the caſe. To both theſe objections I ſhall endeavour to give a brief but ſatisfactory anſwer.

Before the ſilver begins to run from the place where it was melted, the ſubterraneous fire had pervaded the pores of the earth, which by the dilatation of the body of air encloſed in them, became diſtended; the metal immediately follows, and finding a channel ſufficiently capacious for introducing itſelf, farther compreſſes the particles of the earth contiguous to thoſe it abrades, and, conſequently, continues its courſe without obſtruction. The ſubterraneous fire which preceded the fuſion, communicates to the earth a degree of heat ſufficient to expel the cold air, ſo that the metal runs through it, till by degrees the heat is abated, and the metal becomes fixed. Another circumſtance

which contributes to prolong the heat is, there being often no ſpiracle to theſe paſſages, whence the earth through which the metal flows, does ſoon emit the firſt heat it contracted from the ſubterraneous fire; conſequently the metal will not be fixed till at a conſiderable diſtance from the place of liquidation: but the firſt particles of the metal being checked by the cold they have gradually contracted, thoſe which follow flow to the ſame place, and there form a concreted maſs, or mixed body of ſilver and ſcoria, brought with it from the original mine. It now remains that we examine whether what is actually obſerved in theſe lumps of ſilver, agrees with what has been advanced, in order to determine whether this opinion have a probable foundation.

Theſe papas or lumps of ſilver are of a different compoſition from thoſe found in the mines, having all the appearances of melted ſilver, as any perſon, a ſtranger to the manner of finding them, would immediately conclude. In them the ſilver forms a maſs, and the ſurface is covered over with terrene particles, few or none of which are mixed with the ſilver; conformable to what is ſeen in metals melted, and ſuffered to cool without ſeparating the droſs. The terrene particles adhering to the ſilver are black, and exhibit all the marks of calcination, except that in ſome it is ſtronger than in others; and as this muſt happen if the lumps are formed by the fuſion of the metal, it ſeems natural to conclude that they were really formed in this manner.

The ſize and figure of theſe lumps are very different; ſome weighing about two marks, and others much more; for among ſeveral which I ſaw at Lima, were two, one weighing ſixty, and the other above one hundred and fifty marks, being a Paris foot in length; theſe indeed were the largeſt ever ſeen here. Theſe lumps of ſilver are found in different parts of the ſame ground, though not often near one another. The metal in its courſe takes various directions, introducing itſelf into thoſe places where it finds the leaſt reſiſtance; and as theſe parts are more or leſs capacious, the magnitude of the papa is greater or ſmaller,

XIII. About ninety leagues north of the city of Plata, but only forty from Paz, lies the province of Ciacica. Its capital, which has the ſame name, and all the places ſituated to the ſouthward of it, belong to the archbiſhopric of Plata; but many of thoſe to the northwards of it are in the dioceſe of Paz. The countries in this juriſdiction extend in ſome parts above a hundred leagues, and conſequently the temperature is various. Some ſpots are very hot, and produce an exuberance of coca, which ſhrub alone is the ſource of a very conſiderable commerce, ſupplying all the mine towns from Charcas to Potoſi. The leaves of this plant are packed in frails, each of which muſt, according to the ordinance, contain eight pounds; and its current price at Ururo, Potoſi, and the other mine towns, is from nine to ten pieces of eight, and ſometimes more. The colder parts feed large herds of cattle: together with vicunas, guanacos, and other wild creatures. This province has alſo ſome ſilver-mines, but not ſo many, nor ſo rich, as the preceding province.

XIV. Attacama is the weſtern boundary of the audience of Charcas, extending to the South Sea; and the principal town, called alſo Attacama, is no leſs than one hundred and twenty leagues from Plata. Its juriſdiction is of a conſiderable extent, and a great part of it very fruitful; but intermixed with ſome deſerts particularly towards the ſouth, where it divides the kingdoms of Peru and Chili. On the coaſt in this province, there is every year a large fiſhery of tolo, a ſort of fiſh common in the South Sea, with which a very great trade is carried on with the inland provinces, it being there the chief food during Lent, and the other days of abſtinence.

CHAP.

CHAP. XIV. — *Account of the three Dioceſes of La Paz, Santa Cruz de la Sierra, and Tucuman; and of their reſpective Provinces.*

THE province in which the preſent city of La Paz is ſituated, was formerly known by the name of Chuquiyapu, which, in the idiom of that country, is commonly thought to ſignify Chacra, or an inheritance of gold, and is there corruptly called Chuquiabo. Accordingly, Garcelaſo pretends that Chuquiyapu ſignifies Lanz Capitana, or principal lance; but this is deriving it from the general language of the Yncas, and with a difference in the penultima, it not being uncommon for a word nearly alike in ſound to have a very different ſignification in each idiom. This province was firſt conquered by Mayta-Capac, the fourth Ynca; and the Spaniards having afterwards taken poſſeſſion of it, and quelled all diſturbances, this city was founded by Pedro de la Gaſca, that in the vaſt diſtance of an hundred and ſeventy leagues between Arequipa and Plata, there might be a ſettlement of Spaniards, for the improvement of commerce, and the ſafety and conveniency of the traders. The preſident Gaſca committed the care of building it to Alonzo de Mendoza, with orders that it ſhould be erected on a ſpot, midway between Cuſco and Charcas, which are one hundred and ſixty leagues from each other; and that it ſhould be called Nueſtra Senora de la Paz, in memory of the public tranquillity recently ſettled by the defeat and execution of Gonzalo Pizarro, and his adherents. With regard to its ſituation, a valley in the country called Las Pacaſas, was pitched upon, on the 8th of October 1548, as a place abounding in grain and cattle, and full of Indians.

Along the valley De la Paz, flows a pretty large river, but ſometimes greatly increaſed by torrents from the Cordillera, about twelve leagues diſtant from the city; but from its vicinity, great part of the country is expoſed to ſo cold an air, as hard froſts, ſnow, and hail, are not uncommon; but the city itſelf is ſecured from them by its happy ſituation. Other parts are alſo ſo well ſheltered, that they produce all the vegetables of a hot climate, as ſugar-canes, coca, maize, and the like. In the mountainous parts are large woods of valuable timber, but infeſted with bears, tigers, and leopards; they have alſo a few deer: while on the heaths are found guanacos, vicunas, and llamas, with great numbers of cattle of the European ſpecies, as will be ſeen in the account of each reſpective province.

The city is of a middling ſize, and from its ſituation among the breaches of the Cordillera, the ground on which it ſtands is not only unequal, but alſo ſurrounded by mountains, without any other proſpect than the channel of the river, and the adjacent mountains. When its river is increaſed, either by rains or the melting of the ſnow on the mountain, its current forces along huge maſſes of rocks, with ſome grains of gold, which are found after the flood has ſubſided. Hence ſome idea may be formed of the riches incloſed in the bowels of theſe mountains; but a more remarkable demonſtration appeared in the year 1730, when an Indian, happening to waſh his feet in the river, diſcovered a lump of gold, of ſo large a ſize, that the Marquis de Caſtel-Fuerte gave twelve thouſand pieces of eight for it, and ſent it to Spain, as a preſent worthy the curioſity of his ſovereign.

This city is governed by a corregidor, under whom are regidores, and ordinary alcaldes, as in all other towns. Beſides the cathedral, and the pariſh church Del Sagrario, where two prieſts officiate, here are alſo thoſe of St. Barbara, St. Sebaſtian, and St. Peter: the religious fraternities of Franciſcans, Dominicans, Auguſtines, the fathers of Mercy, a college of Jeſuits, and a convent and hoſpital of St. Juan de Dios;

together with a nunnery of the order of the Conception, and another of Santa Tereſa. Here is alſo a college of St. Jerom, for the education of youth, whether deſigned for eccleſiaſtical or civil employments.

In 1608, the church De la Paz was ſeparated from the dioceſe of Chuquiſaca, to which it before belonged, and erected into a cathedral. Its chapter, beſides the biſhop, conſiſts of a dean, archdeacon, chanter, four canons, and prebendaries; but with regard to other circumſtances, being the ſame with ſeveral cities already deſcribed, I ſhall proceed to the provinces in its dioceſe.

I. Biſhopric of the audience of Charcas. — La Paz.

The provinces or juriſdictions in the dioceſe of Paz, are the ſix following:

I. La Paz.
II. Omaſuyos.
III. Pacages.
IV. Laricaxas.
V. Chuciuto.
VI. Paucar-Colla.

I. The juriſdiction of La Paz is of no great extent, and the city is almoſt the only place worth notice in it. In the adjacent Cordillera is a mountain of remarkable height, called Illimani, which doubtleſs contains immenſe riches. A crag of it being ſome years ſince ſtruck from it by a flaſh of lightning, and falling on a neighbouring mountain, ſuch a quantity of gold was found in the fragments, that for ſome time that metal was ſold at Paz, at eight pieces of eight per ounce. But its ſummit being perpetually covered with ice and ſnow, no mine has been opened in this mountain. The ſame we have already obſerved of thoſe high mountains in the province of Quito, all attempts having been rendered abortive.

II. North-weſt, and almoſt at the gates of Paz, the juriſdiction of Omaſuyos begins, and extends about twenty leagues, being bounded on the weſt by the famous lake of Titi-caca, or Chucuito, of which a farther account will be given in the ſequel. The air here is ſomewhat cold, ſo that it produces little grain; but that deficiency is abundantly compenſated by the great numbers of cattle; beſides an advantageous trade for fiſh, carried on in other provinces by the Indians living on the borders of the lake, who are very induſtrious in improving that advantage.

III. Almoſt ſouth-weſt of Paz, is the juriſdiction of Pacages, the greateſt part of which being in a cold climate produces little grain or fruits: ſo that the inhabitants apply themſelves to the breeding of cattle. This province is however very rich in ſilver mines, though but a ſmall part of them are worked; and it is known from undoubted ſigns, that theſe mines were worked in the time of the Yncas. Here are alſo mines of talc, called jaſpas blancos de Verenguela. It is of a beautiful white, and, on account of its tranſparency, is tranſported to different parts of Peru, for making panes of windows, both in churches and houſes; as the ſtone called Tecali ſerves for the ſame uſes in New Spain. In theſe mountains are alſo a great number of mines and gems, particularly one of emeralds, well known in Europe, but for ſome latent reaſons not worked; together with quarries of different ſpecies of marble. In this province is the famous ſilver mine called Verenguela: and likewiſe the mountains of Santa Juana, Tampaya, and others, well known for the immenſe treaſures extracted from them.

IV. Adjacent to the territories of the juriſdiction of La Paz, and to the north of that city, is the province of Laricaxas, which extends one hundred and eighteen leagues from eaſt to weſt, and about thirty from north to ſouth. The temperature of the air is different in different parts, and ſome of its products are the ſame with thoſe of

of Carabaya, by which it is terminated to the northward. This whole privince abounds in gold mines, whoſe metal is of ſo fine a quality, that its ſtandard is twenty-three carats, and three grains. In this province is the celebrated mountain of Sunchuli, in which about fifty years ſince was diſcovered a gold mine remarkably rich, and of the ſtandard above-mentioned; but when in its higheſt proſperity, it was unfortunately overflowed; and notwithſtanding prodigious ſums were expended in endeavours to drain it, all the labour and expence, from the works being injudiciouſly conducted, were thrown away.

V. The juriſdiction of Chucuito begins about twenty leagues weſt of Paz, and ſome part of it bordering on the lake of Titi-caca, that collection of waters is alſo called the lake of Chucuito. The extent of this province from north to ſouth is betwixt twenty-ſix and twenty-eight leagues. Its temperature is in general cold and very diſagreeable, the froſts continuing one half of the year, and the other either ſnow or hail is continually falling. Accordingly the only eſculent productions of the vegetable kingdom are the papas and quinoas. The inhabitants have however a very beneficial trade with their cattle, which abound in this juriſdiction, by ſalting and drying the fleſh. The traders who carry it to the coaſt exchange it for brandy and wine; and thoſe who go to Cochabamba carry alſo papas and quinoas, which they barter for meal.

All the mountains in this province have their ſilver-mines, and formerly produced largely, but at preſent are totally abandoned.

The territories of the province of Chucuito are on one ſide bounded by the lake of Titi-caca, the magnitude of which merits ſome account to be given of it. This lake lies between theſe provinces, comprehended under the general name of Calloa, and is of all the known lakes of America, much the largeſt. Its figure is ſomewhat oval, inclining nearly from north-weſt to ſouth-eaſt its circumference is about eighty leagues, and the water, in ſome parts, ſeventy or eighty fathoms deep. Ten or twelve large rivers, beſides a great number of ſmaller ſtreams, empty themſelves into it. The water of this lake, though neither bitter or brackiſh, is turbid, and has in its taſte ſomething ſo nauſeous that it cannot be drank. It abounds with fiſh, of two oppoſite kinds; one large and palatable, which the Indians call Suchis; the other ſmall, inſipid and bony, termed long ſince by the Spaniards Boyas. It has alſo a great number of geeſe and other wild fowl, and the ſhores covered with flags and ruſhes, the materials of which the bridges are made, and of which an account will be given in the ſequel.

As the weſtern borders of this lake are called Chucuito, ſo thoſe on the eaſt ſide are diſtinguiſhed by the name of Omaſcuyo. It contains ſeveral iſlands, among which is one very large, and was anciently one mountain, but ſince levelled by order of the Yncas; it, however, gave to the lake its own name of Titi-caca, which, in the Indian language, ſignifies a mountain of lead. In this iſland the firſt Ynca Mancho-Capac, the illuſtrious founder of the empire of Peru, invented his political fable, that the ſun, his father, had placed him, together with his ſiſter and conſort, Mama Oello Huaco, there, enjoining them to draw the neighbouring people from the ignorance, rudeneſs, and barbarity in which they lived, and humanize them by cuſtoms, laws and religious rites dictated by himſelf; and in return for the benefits reſulting from this artful ſtratagem, the iſland has, by all the Indians, been conſidered as ſacred; and the Yncas determining to erect on it a temple to the ſun, cauſed it to be levelled, that the ſituation might be more delightful and commodious.

This was one of the moſt ſplendid temples in the whole empire. Beſides the plates of gold and ſilver with which its walls were magnificently adorned, it contained an immenſe collection of riches, all the inhabitants of provinces which depended on the

empire, being under an indiſpenſable obligation of viſiting it once a year, and offering ſome gift. Accordingly they always brought, in proportion to their zeal or ability, gold, ſilver, or jewels. This immenſe maſs of riches, the Indians, on ſeeing the rapacious violence of the Spaniards, are thought to have thrown into the lake; as it is certainly known, they did with regard to a great part of thoſe at Cuſco, among which was the famous golden chain made by order of the Ynca Huayna Capac, to celebrate the feſtival of giving name to his eldeſt ſon. But theſe valuable effects were thrown into another lake, ſix leagues ſouth of Cuſco, in the valley of Orcos; and though numbers of Spaniards, animated with the flattering hopes of ſuch immenſe treaſures, made frequent attempts to recover them, the great depth of the water, and the bottom being covered with ſlime and mud, rendered all their endeavours abortive. For notwithſtanding the circuit is not above half a league, yet the depth of water is in moſt places not leſs than twenty-three or twenty-four fathoms.

Towards the ſouth part of the lake Titi-caca, the banks approach each other, ſo as to form a kind of bay, which terminates in a river called El Deſaguadero, or the drain, and afterwards forms the lake of Paria, which has no viſible outlet; but the many whirlpools ſufficiently indicate that the water iſſues by a ſubterraneous paſſage. Over the river Deſaguadero is ſtill remaining the bridge of ruſhes, invented by Capac Yupanqui, the fifth Ynca, for tranſporting his army to the other ſide, in order to conquer the provinces of Collaſuyo. The Deſaguadero is here between eighty and a hundred yards in breadth, flowing with a very impetuous current under a ſmooth, and, as it were, a ſleeping ſurface. The Ynca, to overcome this difficulty, ordered four very large cables to be made of a kind of graſs which covers the lofty heaths and mountains of that country, and called by the Indians ichu; and theſe cables were the foundation of the whole ſtructure. Two of theſe being laid acroſs the water, faſcines of dry juncia and totora, ſpecies of ruſhes, were faſtened together, and laid acroſs them. On theſe the two other cables were laid, and again covered with the other faſcines ſecurely faſtened, but ſmaller than the firſt, and arranged in ſuch a manner as to form a level ſurface; and by this means he procured a ſafe paſſage to his army. This bridge, which is about five yards in breadth, and one and a half above the ſurface of the water, is carefully repaired, or rebuilt every ſix months, by the neighbouring provinces, in purſuance of a law made by that Ynca, and ſince often confirmed by the Kings of Spain, on account of its prodigious uſe; it being the channel of intercourſe between thoſe provinces ſeparated by the Deſaguadero.

VI. The laſt juriſdiction of this biſhoprick is that of Paucar-Colla, whoſe capital is the town of Puno. Its juriſdiction ſouthward borders on that of Chucuito, and has the ſame temperature: conſequently is obliged to have recourſe to other provinces for the greateſt part of its grain, and eſculent vegetables; but abounds in all kinds of cattle, both of the European and American kinds. The Indians of the town weave bags with their wool, and ſell them to great advantage. The mountains in this province contain ſeveral ſilver mines, and among the reſt the famous Laycacota, which formerly belonged to Joſeph Salcedo, and where the metal was often cut out of the mine with a chiſſel; but its prodigious richneſs accelerated the death of its owner, ſoon after which the waters broke into it; nor has any labour and expence been able to drain it, ſo that it is at preſent abandoned. Few of the reſt are worked, the general caſe with almoſt all the ſilver-mines in this audience, eſpecially of thoſe in the archbiſhopric of Charcas, and this dioceſe of La Paz.

II. Biſhopric

II. Biſhopric in the Audience of Charcas. — Santa Cruz de la Sierra.

The province of Santa Cruz de la Sierra is a government and captain-generalſhip: and though its juriſdiction is of a large extent, not many Spaniards are found in it, and the few towns are in general miſſions comprehended under the common name of Paraguay miſſions. The capital of the ſame name was erected into a biſhopric in the year 1605. Its chapter conſiſts only of a biſhop, dean, and archdeacon, having neither canons, prebendaries, or other dignitaries. The uſual reſidence of the biſhop is the city of Miſque Pocona, eighty leagues from Santa Cruz de la Sierra.

The juriſdiction of Maſque Pocona reaches above thirty leagues; and although the city itſelf is very thinly inhabited, there are, in other parts of it, ſeveral populous towns. The temperature is hot, but not in a degree too great for vineyards. The valley in which the city ſtands is about eighty leagues in circumference, and produces all kinds of grain and fruits; and the woods and uncultivated mountains afford great quantities of honey and wax, which conſtitute a principal branch of its commerce.

The miſſions belonging to the Jeſuits in the parts dependent on this biſhopric, are thoſe called Indios Chiquitos, or little Indians, a name given them by the Spaniards, on account of the great ſmallneſs of the doors of their houſes. Their country lies between Santa Cruz de la Sierra, and the lake Xarayes, from whence the river Paraguay had its riſe, and being increaſed by the conflux of others, forms the famous river De la Plata. It was about the cloſe of the laſt century, when the fathers firſt began their preaching in this nation, and ſo great has been their ſucceſs, that in the year 1732, they had formed ſeven towns, each conſiſting of above ſix hundred families; and were then building others for aſſembling under the ſame laws, the great number of Indians, daily converted. Theſe Indios Chiquitos are well made and active; and their courage has often been experienced by the Portugueſe, who uſed to make incurſions, in order to carry off the inhabitants for ſlaves: but the valour of theſe people has taught them to deſiſt from ſuch inhuman attempts, and, for their own ſafety, to keep within their limits. The arms of theſe Indians are muſquets, ſabres, and poiſoned arrows. Though their language is different from that of the other nations of Paraguay, the ſame cuſtoms nearly obtain here, as among all the other Indians.

Bordering on this nation of Chiquitos is another of Pagan Indians, called Chiriguanos, or Chiriguanaes, who have always refuſed to liſten to the miſſionaries; though the fathers ſtill continue to viſit them at certain times, and preach to them, but prudently take care to be accompanied with ſome Chiquitos for their ſecurity; and thus they make now and then a few converts, who are ſent to their towns, and there lead a ſocial life. This generally happens after ſome misfortune in the wars continually carried on between them and the Chiquitos; when, in order the more eaſily to obtain a peace, and that the Chiquitos may not abſolutely exterminate them, they ſend for miſſionaries; but ſoon diſmiſs them again, pretending that they cannot bear to ſee puniſhments inflicted on perſons merely for deviating from the rules of reaſon. This plainly demonſtrates, that all they deſire or aim at, is an unbounded licentiouſneſs of manners.

Santa Cruz de la Sierra, the capital of this government, lies eighty or ninety leagues eaſt of Plata. It was originally built ſomething farther toward the ſouth-eaſt, near the Cordillera of the Chiriguanos. It was founded in the year 1548, by Captain Nuflo de Chaves, who called it Santa Cruz, from a town of that name near Truxillo in Spain, where he was born. But the city having been deſtroyed, it was built in the

place where it now ſtands. It is neither large nor well built, nor has it any thing anſwerable to the promiſing title of city.

III. Biſhoprick of the Audience of Charcas.—El Tucuman.

Tucma, by the Spaniards called Tucuman, lies in the centre of this part of America, beginning ſouth of the Plata, beyond the towns of Chicas, which furniſh Indians for the mines in Potoſi. On the eaſt it borders on Paraguay and Buenos Ayres; reaches weſtward to the kingdom of Chilio, ſouthward to the Pampas or plains belonging to the land of Magellan. This country, though united to the empire of the Yncas, was never conquered by them; having, when Vira Cocha the eighth Ynca had made himſelf ſovereign in Charcas, ſent a deputation of their chiefs, with a requeſt of being admitted among the number of his ſubjects, and that he would be pleaſed to ſend them governors, that their country might partake of the benefits of thoſe wiſe laws, and uſeful improvements, he had introduced into all the parts of his empire.

The Spaniards having penetrated into Peru, and finiſhed the conqueſt of far the greateſt part of that empire, proceeded to that of Tucuman in 1549, under the conduct of Juan Nunez de Prado, whom the preſident Pedro de la Gaſca intruſted with the conduct of this expedition. He had, indeed, no opportunity of diſplaying his military talents; for the inhabitants, being of a mild and eaſy diſpoſition, readily ſubmitted; on which, the following four cities were built in that country, namely, Santiago del Eſtero, ſo called from a river of the ſame name on which it was built, and whoſe inundations greatly contribute to increaſe the fertility of the ſoil; it ſtands above one hundred and ſixty leagues ſouth of Plata: San Miguel del Tucuman, twenty-five or thirty leagues weſt of the former: Nueſtra Senora de Talavera, ſomething more than forty leagues north-weſt of Santiago. The fourth was called Cordova de la Nueva Andalucia, and is above eighty leagues ſouth of Antiago.

The territories of this government being of ſuch extent, that they reach from north to ſouth above two hundred leagues, and little ſhort of a hundred in ſome parts from eaſt to weſt, it was judged proper to increaſe the number of Spaniſh ſettlements; and, accordingly, orders were given for building two other cities, which are Rioja, about eighty leagues ſouth-weſt of Santiago, and Santa, between ſixty and ſeventy leagues north-weſt of the ſame city; together with a village called San Salvador, or Xuxui, about twenty leagues north of Salta. But all theſe places are ſmall, and built without either order or ſymmetry. The governor, notwithſtanding Santiago was the firſt, reſides at Salta; and even the biſhop and his chapter at Cordova, which is the largeſt. The others have their reſpective corregidors, under whom, alſo, are the Indian villages, within the dependencies of their proper cities. But of theſe there is no great number, the principal part of the country not being inhabitable, either from a want of water, or from their being covered with impenetrable foreſts. This want of inhabitants is alſo greatly owing to the cruelties and ravages of the ſavage Indians, in their frequent incurſions.

The epiſcopal church of Tucuman, which, as we have already obſerved, is in Cordova, was in the year 1570 erected into a cathedral, and its chapter now conſiſts of the biſhop, dean, archdeacon, chanter, rector, and treaſurer, who is elected; but has neither canons nor prebendaries.

Thoſe parts of the country which are watered by the rivers, are ſo remarkably fertile in grain and fruits, that they produce ſufficient for the common conſumption of the inhabitants. The woods abound in wild honey and wax, whilſt the hot parts produce

ſugar and cotton; the laſt is manufactured here, and, with the woollen ſtuffs alſo wove by the inhabitants, form an advantageous branch of trade. But its great article conſiſts in the mules bred in the luxuriant paſtures of its valleys. Inconceivable droves of theſe creatures are ſent to all parts of Peru, the Tucuman mules being famous over theſe countries, far exceeding all others in ſtrength and docility.

CHAP. XV. — *Account of Paraguay and Buenos Ayres; the two laſt Governments of the Audience of Charcas.*

IV. Biſhopric of the Audience of Charcas.—Paraguay.

THE government of Paraguay lies ſouth of Santa Cruz de la Sierra, and eaſt of Tucuman. Southward it joins to that of Buenos Ayres; and is terminated eaſtward by the captainſhip of St. Vicente in Brazil, whoſe capital is the city of St. Pablo. Theſe countries were firſt diſcovered by Sebaſtian Gaboro, who, coming to the river of Plata in the year 1526, ſailed up the river Palana in ſome ſmall bark, and thence entered that of Paraguay. He was ſucceeded in 1536 by Juan de Ayolos, to whom Don Pedro de Mendoza, the firſt governor of Buenos Ayres, had given a commiſſion, together with a body of troops, military ſtores, and other neceſſaries; and afterwards, by his orders, Juan de Salinas founded the city of Nueſtra Senora de la Aſſumption, the capital of the province; but the diſcovery of the whole, and, conſequently, the conqueſt of people who inhabited it, being ſtill imperfect, it was proſecuted by Alvar Nunez, ſurnamed Cabeza de Baca, or Cowhead, whoſe eminent ſervices, on the death of Don Pedro de Mendoza, procured him the government of Buenos Ayres.

The only ſettlements in the whole extent of this government, are the city of Aſſumption, Villa Rica, and ſome other towns, whoſe inhabitants are a mixture of Spaniards, Meſtizos, and ſome Indians, but the greateſt part of the ſeveral caſts. As the city itſelf is but ſmall and irregular, nothing better can be expected in Villa Rica, and other towns and villages. Its houſes are indeed intermixed with gardens and plantations, but without any ſymmetry. It is the reſidence of the governor of the province, who had formerly under his juriſdiction part of the towns compoſing the miſſions of Paraguay; but a few years ſince they were ſeparated from it, and are now annexed to the government of Buenos Ayres; but without any change in the eccleſiaſtical government. In the city of Aſſumption is a cathedral, whoſe chapter conſiſts of the biſhop, dean, archdeacon, treaſurer, and two canons. The pariſhes of the city of Villa Rica, and of the other towns depending on this government, are ſerved by the Franciſcans: but in the miſſionary towns they are ſolely under the care of the Jeſuits; and theſe compoſing the greater number of towns in this province, I ſhall ſpeak particularly of them, ſtill keeping to that conciſeneſs I have obſerved in the other juriſdictions.

The miſſions of Paraguay, beſides thoſe in the province of that name, include alſo a great many of Santa Cruz de la Sierra, Tucuman, and Buenos Ayres. Within a century and a half, the epocha of their firſt eſtabliſhment, they have been the means of bringing into the boſom of the church many Indian nations, who lived in the blindneſs of idolatry, and the turpitude of the ſavage cuſtoms tranſmitted to them by their anceſtors. The firſt inſtance of this apoſtolic zeal was the ſpiritual conqueſt of the Guaranie Indians, ſome of whom inhabited the banks of the rivers Uruguay and Parana; and others are near a hundred leagues up the countries north-weſt of the Guayra.

The Portugueſe, then only intent on the improvement of their colonies, in violation of the moſt ſacred laws, did not, even after the converſion of theſe people, ceaſe from making incurſions, in order to carry off the young inhabitants as ſlaves for their plantations; ſo that it became abſolutely neceſſary, in order to preſerve theſe converts, to remove into Paraguay, about twelve thouſand of all ages, and both ſexes; a like number of emigrants was alſo brought from Tappe and formed into communities, living here in peace and ſafety; and, at the ſame time, in a decency becoming their new profeſſion.

But the number of ſucceeding converts was ſo great, that continual additions were neceſſary to theſe towns, ſo that I was at Quito informed by a perſon of undoubted veracity, and thoroughly acquainted with ſuch matters, that the number of towns of the Guaranies Indians in the year 1734, amounted to thirty-two, and ſuppoſed to contain between thirty and forty thouſand families: that from the increaſing proſperity of the Chriſtian religion, they were then deliberating on the manner of building three other towns, theſe thirty-two being in the dioceſes of Buenos Ayres and Paraguay. Beſides the Indios Chiquitos belonging to the dioceſe of Santa Cruz de la Sierra, there were at that time ſeven very populous towns; and, by reaſon of the great reſort of converted Indians, preparations were making for building others.

The Paraguay miſſions are on all ſides terminated by nations of idolatrous Indians; ſome of which, however, live in perfect harmony with them, but others do all in their power to exterminate them by frequent incurſions; and it is with the latter that the fathers chiefly employ their zeal, in order to reclaim them from their inhumanity, by preaching to them the glad tidings of the Goſpel. Nor is this fortitude deſtitute of fruit, the moſt rational receiving with joy the knowledge of the true God, and, quitting their country, are conducted to the Chriſtian towns, where, after proper inſtructions, they are admitted to baptiſm.

About a hundred leagues from the miſſion is a nation of idolaters, called Guanoas. It is with great difficulty any of theſe are brought to embrace the light of the Goſpel, as they are extremely addicted to a licentious life; and a great number of Meſtizos, and even ſome Spaniards, whom crimes have obliged to take ſhelter among them, by their ill example harden the Indians in their contempt of inſtruction. Beſides they are ſo indolent and ſlothful, that they will not take the pains to cultivate the lands, chooſing to live by the more expeditious way of hunting; and, being convinced, that if they embrace the Chriſtian religion, and ſubmit to the miſſionaries, they muſt labour, they cannot bear to think of a change which will inevitably deprive them of their favourite indolence. Many, however, of thoſe who come to the Chriſtian towns to viſit their relations, cannot withſtand the order and decency in which they ſee them live, and accordingly embrace the Chriſtian religion.

It is nearly the ſame with the Charuas, a people inhabiting the country between the rivers Parana and Uruguay. Thoſe dwelling on the banks of the river Parana, from the town of Corpus upwards, and called Guananas, are more tractable, and their induſtry in agriculture, and other rural arts, render them more ſuſceptible of liſtening to the preaching of the miſſionaries; beſides, no ſuch thing as a fugitive is to be found among them. Near Cordova is another nation of idolaters, called Pampas, who, notwithſtanding they frequently come to the city to ſell different productions of the earth, are very obſtinate in their opinions, and, conſequently, are not reclaimed without the greateſt difficulty. Theſe four nations of idolatrous Indians live, however, in peace with the Chriſtians.

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In the neighbourhood of the city of Santa Fé, ſituated in the province of Buenos Ayres, are others who reject all terms of peace; ſo that even the villages and eſtates near Santiago and Salta, in the government of Tucuman, have felt the effects of their daring incurſions. The other nations between theſe and the Chiquitos, and the lake of Xarayes, are little known. Not many years ſince ſome Jeſuit miſſionaries ventured to viſit their country up the river Pilcomayo, which runs from Potoſi to Aſſumption; but their territories being very large, and living a vagrant ſort of lives, without fixed habitations; the zeal of the good fathers was fruſtrated; as it has indeed on many other occaſions, even after repeated trials.

The idolatrous Indians, who inhabit the country from the city of Aſſumption northward, are but very few. The miſſionaries have been ſo fortunate as to meet with ſome of theſe in their journeys after them, and prevailed on them to accompany them to the Chriſtian towns, where, without much reluctancy, they have embraced Chriſtianity. The Chiriguanos, already mentioned, alſo reſide in theſe parts; but are ſo infatuated with the pleaſures of a ſavage life, that they will not hear of living under laws.

From what has been ſaid, it will eaſily be conceived that the country occupied by the Paraguay miſſions, muſt be of a very great extent. The air in general is moiſt and temperate, though in ſome parts it is rather cold *. The temperate parts abound with all kinds of proviſions. Cotton contributes conſiderably to their riches, growing here in ſuch quantities, that every little village gathers of it annually above two thouſand arobas; and the induſtrious are very ingenious in weaving it into ſtuffs for exportation. A great deal of tobacco is alſo planted here. But theſe articles are far leſs advantageous to the inhabitants than the herb called Paraguay, which alone would be ſufficient to form a flouriſhing commerce in this province, it being the only one which produces it: and from hence it is ſent all over Peru and Chili, where its uſe is univerſal; eſpecially that kind of it called camini, which is the pure leaf; the other, diſtinguiſhed by the name of palos, being leſs fine, and not ſo proper for making mate, is not ſo valuable.

Theſe goods were carried for ſale, to the cities of Santa Fé, and Buenos Ayres, where the fathers have factors; the Indians, particularly the Guaranies, wanting the ſagacity and addreſs, ſo abſolutely neceſſary to procure ſucceſs in commercial affairs. Theſe factors diſpoſe of what is conſigned to them from Paraguay, and lay out the money in ſuch European goods as the towns are then in want of, in ornaments for the churches, and the decent ſupport of the prieſts officiating in them. But the greateſt care is taken in deducting from what each town ſends, the amount of the tribute of its Indian inhabitants, which is remitted immediately to the revenue offices, without the leaſt deduction, except the ſtipends for the prieſts, and the penſions allowed the caciques.

The other products of their lands, together with their cattle, are made uſe of for the ſubſiſtence of the inhabitants, among whom they are diſtributed with ſuch regularity and œconomy, that the excellent police under which thoſe people live ſo happily, cannot be paſſed over in ſilence, without great injuſtice to theſe wiſe legiſlators.

Every town of the miſſions of Paraguay, like the cities and great towns of the Spaniards, are under a governor, regidores, and alcaldes. That the important office of a governor may be always filled by a perſon duly qualified, he is choſen by the Indians, with the approbation of the prieſts. The alcaldes are annually appointed by the regi-

* White froſts are very common here in July and Auguſt, ſometimes they have ice about the thickneſs of half a crown. The former phænomenon has been ſeen as far to the northward as Rio de Janeiro.

dores,

dores, and jointly with them, the governor attends to the maintenance of good order and tranquillity among the inhabitants: and that theſe officers, who are ſeldom perſons of the moſt ſhining parts, may not abuſe their authority, and either through intereſt, or paſſion, carry their revenge too far againſt other Indians, they are not to proceed to puniſhment without previouſly acquainting the prieſt with the affair, that he may compare the offence with the ſentence. The prieſt, on finding the perſon really guilty, delivers him up to be puniſhed, which generally conſiſts in impriſonment for a certain number of days, and ſometimes faſting is added to it; but if the fault be very great, the delinquent is whipt, which is the moſt ſevere puniſhment uſed among them; theſe people being never known to commit any crime that merits a greater degree of chaſtiſement; for immediately on being regiſtered as converts, the greateſt care has been taken in theſe miſſions, to imprint on the minds of theſe new Chriſtians, a deteſtation of murder, robbery, and ſuch atrocious crimes. The execution of the ſentence is preceded by a diſcourſe made by the prieſt before the delinquent, in which he repreſents to the offender, with the greateſt ſoftneſs and ſympathy, the nature of his crime, and its turpitude; ſo that he is brought to acknowledge the juſtneſs of the ſentence, and to receive it rather as a brotherly correction than a puniſhment; ſo that though nature muſt feel, yet he receives the correction with the greateſt humility and reſignation, being conſcious that he has brought it upon himſelf. Thus the prieſts are in no danger of any malice being harboured againſt them; indeed the love and veneration the Indians pay them, is ſo great, that could they be guilty of enjoining an unjuſt puniſhment, the ſuffering party would impute it to his own demerits, being firmly perſuaded that the prieſts never do any thing without a ſufficient reaſon.

Every town has a particular armory, in which are kept all the fire-arms, ſwords, and weapons uſed by the militia, when they take the field, whether to repel the inſults of the Portugueſe, or any heathen Indians inhabiting on their frontiers. And that they may be dexterous in the management of them, they are exerciſed on the evening of every holiday, in the market-places of the towns. All perſons capable of bearing arms in every town, are divided into companies, and have their proper officers, who owe this diſtinction to their military qualifications; their uniform is richly laced with gold and ſilver, according to their rank, and embroidered with the device of their towns. In theſe they always appear on holidays, and at the times of exerciſe. The governor, alcaldes, and regidores, have alſo very magnificent habits of ceremony, which they wear on ſolemn occaſions.

No town is without a ſchool for teaching reading, writing, dancing, and muſic; and in whatever they undertake, they generally excel, the inclination and genius of every one being carefully conſulted before they are forwarded in any branch of ſcience. Thus many attain a very good knowledge of the Latin tongue. In one of the courts of the houſe belonging to the prieſt of every town, are ſhops or work-houſes for painters, ſculptors, gilders, ſilverſmiths, lockſmiths, carpenters, weavers, watchmakers, and all other mechanic arts and trades. Here every one works for the benefit of the whole town, under the inſpection of the prieſts coadjutors: and boys are there alſo inſtructed in thoſe trades and arts to which they have the greateſt inclination.

The churches are large and well built, and with regard to decorations, not inferior to the richeſt in Peru. Even the houſes of the Indians are built with that ſymmetry and convenience, and ſo completely and elegantly furniſhed, as to excel thoſe of the Spaniards in many towns in this part of America. Moſt of them however are only of mud walls, ſome of unburnt bricks, and others of ſtone; but all in general covered with tiles. Every thing in theſe towns is on ſuch good footing, that all private houſes

make

make gunpowder, that a ſufficient quantity of it may not be wanting, either on any exigency, or for fireworks on holidays, and other anniverſary rejoicings which are punctually kept. But the moſt ſplendid ceremony is on the acceſſion of the new monarch to the Spaniſh throne, when the governor, alcaldes, regidores, together with all the civil and military officers, appear in new uniforms, and other ornaments, to expreſs the ardent affection they bear their new ſovereign.

Every church has its band of muſic, conſiſting of a great number both of vocal and inſtrumental performers. Divine ſervice is celebrated in them with all the pomp and ſolemnity of cathedrals. The like is obſerved in public proceſſions, eſpecially that on Corpus Chriſti day, at which the governor, alcaldes, and regidores, in their habits of ceremony, and the militia in their uniforms, aſſiſt; the reſt of the people carry flambeaux; ſo that the whole is conducted with an order and reverence ſuitable to the occaſion. Theſe proceſſions are accompanied with fine dancing, but very different from that in the province of Quito, deſcribed in the firſt part; and the performers wear particular dreſſes, extremely rich, and well adapted to the characters repreſented. In ſhort, a miſſionary town omits no circumſtance either of feſtivity or devotion, practiſed in opulent cities.

Every town has a kind of beaterio, where women of ill fame are placed; it alſo ſerves for the retreat of married women who have no families, during the abſence of their huſbands. For the ſupport of this houſe, and alſo of orphans and others, who by age or any other circumſtance are diſabled from earning a livelihood, two days in the week are ſet apart; when the inhabitants of every village are obliged to ſow and cultivate a certain piece of ground, called Labor de la Comunidad, the labour of the community; and the ſurplus of the produce is applied to procure furniture and decorations for the church, and to clothe the orphans, the aged, and the diſabled perſons. By this benevolent plan all diſtreſs is precluded, and the inhabitants provided with every neceſſary of life. The royal revenues are punctually paid; and by the union of the inhabitants, the uninterrupted peace they enjoy, and the wiſdom of their policy, which is preſerved inviolable; theſe places, if there are any ſuch on earth, are the habitations of true religion and felicity.

The Jeſuits, who are the prieſts of theſe miſſions, take upon them the ſole care of diſpoſing of the manufactures and products of the Guaranies Indians, deſigned for commerce; theſe people being naturally careleſs and indolent, and doubtleſs without the diligent inſpection and pathetic exhortations of the fathers, would be buried in ſloth and indigence. The caſe is very different in the miſſions of the Chiquitos, who are induſtrious, careful, and frugal; and their genius ſo happily adapted to commerce, as not to ſtand in need of any factors. The prieſts in the villages of this nation are of no expence to the crown, the Indians themſelves rejoicing in maintaining them; and join in cultivating a plantation filled with all kinds of grain and fruits for the prieſt; the remainder, after this decent ſupport, being applied to purchaſe ornaments for the churches.

That the Indians may never be in any want of neceſſaries, it is one part of the miniſter's care to have always in readineſs a ſtock of different kinds of tools, ſtuffs, and other goods; ſo that all who are in want repair to him, bringing by way of exchange wax, of which there are here great quantities, and other products. And this barter is made with the ſtricteſt integrity, that the Indians may have no reaſon to complain of oppreſſion; and that the high character of the prieſts for juſtice and ſanctity may be ſtudiouſly preſerved. The goods received in exchange are by the prieſts ſent to the ſuperior of the miſſions, who is a different perſon from the ſuperior of the Guaranies;

ranies; and with the produce, a freſh ſtock of goods is laid in. The principal intention of this is, that the Indians may have no occaſion to leave their own country, in order to be furniſhed with neceſſaries; and by this means are kept from the contagion of thoſe vices, which they would naturally contract in their intercourſe with the inhabitants of other countries, where the depravity of human nature is not corrected by ſuch good examples and laws.

If the civil government of theſe towns be ſo admirably calculated for happineſs, the eccleſiaſtical government is ſtill more ſo. Every town and village has its particular prieſt, who, in proportion to its largeneſs, has an aſſiſtant or two of the ſame order. Theſe prieſts, together with ſix boys who wait on them, and alſo ſing in the churches, form in every village a kind of ſmall college, where the hours are under the ſame regulation, and the exerciſes ſucceed each other with the ſame formalities as in the great colleges of cities. The moſt laborious part of the duty belonging to the prieſt, is to viſit perſonally the chacaras or plantations of the Indians; and in this they are remarkably ſedulous, in order to prevent the ill conſequences of that ſlothful diſpoſition ſo natural to the Guaranies; who, were they not frequently rouſed and ſtimulated by the preſence of the prieſt, would abandon their work, or, at leaſt, perform it in a very ſuperficial manner. He alſo attends at the public ſlaughter-houſe, where every day are killed ſome of the cattle; large herds of which are kept for the public uſe by the Indians. The fleſh of theſe beaſts is dealt out by the prieſt, in lots proportionable to the number of perſons each family conſiſts of; ſo that every one has a ſufficiency to ſupply the calls of nature, but nothing for waſte. He alſo viſits the ſick, to ſee that they want for nothing, and are attended with that care and tenderneſs their ſtate requires. Theſe charitable employments take up ſo great a part of the day, as often to leave him no time for aſſiſting the father coadjutor in the ſervices of the church. One uſeful part of the duty of the latter is to catechize, and explain ſome portion of ſcripture in the church every day in the week, Thurſdays and Saturdays excepted, for the inſtruction of the young of both ſexes; and theſe in every town are not leſs than two thouſand. On Sundays all the inhabitants never fail to attend divine ſervice. The prieſt alſo viſits the ſick to confeſs them; and if the caſe requires it, to give them the viaticum; and to all theſe muſt be added, the other indiſpenſable duties of a prieſt.

By the ſtrictneſs of the law theſe prieſts ſhould be nominated by the governor, as vice-patron, and be qualified for their function by the conſecration of the biſhop; but as among the three perſons recommended on ſuch occaſions to the governor, there will of conſequence be one, whoſe virtues and talents render him moſt fit for the office; and as no better judges of this can be ſuppoſed than the provincials of the order, the governor and biſhop have receded from their undoubted rights, and the provincials always collate and prefer thoſe whoſe merits are moſt conſpicuous.

The miſſions of the Guaranies are alſo under one ſuperior, who nominates the aſſiſtant prieſts of the other towns. His reſidence is at Candelaria, which lies in the centre of all the miſſions; but he frequently viſits the other towns, in order to ſuperintend their governments; and at the ſame time, concerts meaſures that ſome of the fathers may be ſent among the heathen Indians, to conciliate their affections, and by degrees work their converſion. In this important office he is aſſiſted by two vice-ſuperiors, one of whom reſides at Parana, and the other on the river Uruguay. All theſe miſſions, though ſo numerous and diſperſed, are formed as it were into one college, of which the ſuperior may be conſidered as the maſter or head; and every

town

town is like a family governed by a wife and affectionate parent, in the perſon of the prieſt.

In the miſſions of the Guaranies, the King pays the ſtipends of the prieſts, which, including that of the aſſiſtant, is three hundred dollars per annum. This ſum is lodged in the hands of the ſuperior, who every month ſupplies them with neceſſary food and apparel, and on any extraordinary demand, they apply to him, from whom they are ſure of meeting with a gracious reception.

The miſſions of the Chiquito Indians have a diſtinct ſuperior; but with the ſame functions as he who preſides over the Guaranies; and the prieſts alſo are on the ſame footing, but have leſs anxiety and labour; the induſtry and activity of theſe Indians, ſaving them the trouble of coming among them to exhort them to follow their employments, or of being the ſtorekeepers and agents in diſpoſing of the fruits of their labours; they themſelves vending them for their own advantage.

All theſe Indians are very ſubject to ſeveral contagious diſtempers; as the ſmall-pox, malignant fevers, and others, to which, on account of the dreadful havock attending them, they give the name of peſtilence. And to ſuch diſeaſes it is owing, that theſe ſettlements have not increaſed in a manner proportional to their numbers, the time ſince their eſtabliſhment, and the quietneſs and plenty in which theſe people live.

The miſſionary fathers will not allow any of the inhabitants of Peru, whether Spaniards or others, Meſtizos or even Indians, to come within their miſſions in Paraguay. Not with a view of concealing their tranſactions from the world; or that they are afraid leſt others ſhould ſupplant them of part of the products and manufactures; nor for any of thoſe cauſes, which even with leſs foundation, envy has dared to ſuggeſt; but for this reaſon, and a very prudent one it is, that their Indians, who being as it were new-born from ſavageneſs and brutality, and initiated into morality and religion, may be kept ſteady in this ſtate of innocence and ſimplicity. Theſe Indians are ſtrangers to ſedition, pride, malice, envy, and other paſſions, which are ſo fatal to ſociety. But were ſtrangers admitted to come among them, their bad examples would teach them what at preſent they are happily ignorant of; but ſhould modeſty, and the attention they pay to the inſtructions of their teachers, be once laid aſide, the ſhining advantages of theſe ſettlements would ſoon come to nothing; and ſuch a number of ſouls, who now worſhip the true God in the beauty of holineſs, and live in tranquillity and love (of which ſuch ſlender traces are ſeen among civilized nations), would be again ſeduced into the paths of diſorder and perdition.

Theſe Indians live at preſent in an entire aſſurance, that whatever their prieſts adviſe them to is good, and whatever they reprehend is bad. But their minds would ſoon take a different turn, by ſeeing other people, on whom the doctrine of the goſpel is ſo far from having any effect, that their actions are abſolutely repugnant to its precepts. At preſent they are firmly perſuaded, that in all bargains, and other tranſactions, the greateſt candour and probity muſt be uſed, without any prevarication or deceit. But it is too evident, that were others admitted among them, whoſe leading maxim is to ſell as dear, and buy as cheap as they are able, theſe innocent people would ſoon imbibe the ſame practice, together with a variety of others which ſeem naturally to flow from it. The contamination would ſoon ſpread through every part of their behaviour, ſo as never to be reclaimed. I do not here mean to leſſen the characters of thoſe Spaniards or inhabitants of other nations, whoſe countries are ſituated conveniently for trading with Paraguay, by inſinuating that they are univerſally fraudulent and diſſolute; but, on the other hand, among ſuch numbers, it would be very ſtrange if there was not ſome; and one ſingle perſon of ſuch a character would be ſufficient to

infect a whole country. And who could pretend to say, that, if free admiſſion were allowed to foreigners, there might not come in, among a multitude of virtuous, one of ſuch peſtilent diſpoſitions? Who can ſay that he might not be even the very firſt? Hence it is that the Jeſuits have inflexibly adhered to the maxim of not admitting any foreigners among them; and in this they are certainly juſtified by the melancholy example of the other miſſions of Peru, whoſe decline from their former happineſs and piety is the effect of an open intercourſe.

Though in the ſeveral parts of Paraguay, where the miſſions have been always ſettled, there are no mines of gold and ſilver; ſeveral are to be found in ſome adjacent countries under the dominion of the King of Spain; but the Portugueſe reap the whole benefit of them: for having encroached as far as the lake Xarayes, near which, about twenty years ago, a rich mine of gold was diſcovered, they, without any other right than poſſeſſion, turned it to their own uſe; the miniſtry in Spain, in conſideration of the harmony ſubſiſting between the two nations, and their joint intereſt, forbearing to make uſe of any forcible methods.

V. Biſhoprick of the Audience of Charcas. — Buenos Ayres.

The eccleſiaſtical juriſdiction of the biſhop of Buenos Ayres extends to all the countries under the temporal government of the ſame name; and this begins on the oriental coaſt of that part of America, and extends weſtward as far as Tucuman; on the north it terminates on Paraguay, and is bounded towards the ſouth by the land of Magellan. Its countries are watered by the great river De la Plata, the diſcovery of which was owing to Juan Dias de Solis, who, in 1515, having ſailed from Spain with two veſſels to make diſcoveries, arrived at the mouth of this river, and took poſſeſſion of it in the name of the King of Spain. But being unhappily deluded by the ſigns of joy and friendſhip made by the Indians, he landed, and was immediately killed, together with his few attendants. The ſame voyage was repeated in 1526, under Sebaſtian Cabot, who, entering the river, diſcovered an iſland, which he called St. Gabriel; and advancing further, came to another river, which emptied itſelf into that of La Plata; to this he gave the name of St. Salvador, cauſing his fleet to enter the river, and there diſembark their troops. Here he built a fort, and leaving in it a part of his men, he ſailed above two hundred leagues up the river Parana, diſcovering alſo that of Paraguay. Cabot, having purchaſed ſome ingots of ſilver from the Indians he met with, and particularly from the Guaranies, who brought the metal from the other parts of Peru, imagined that they had found it in the neighbourhood of the river, and thence called the river Rio de la Plata, or Silver River, which has ſuperſeded that of Solis, as it was before called from its firſt diſcoverer, whoſe memory is ſtill preſerved by the little river Solis, about ſeven or eight leagues weſt of Maldonado bay.

The capital of this government is called Nueſtra Senora de Buenos Ayres. It was founded in the year 1535 by Don Pedro de Mendoza, purſuant to his orders, which alſo appointed him governor. He choſe for it a place called Cape Blanco, on the ſouth ſide of Rio de la Plata, cloſe by a ſmall river. Its latitude, according to Father Feville, is 34° 34′ 38″ S. He gave it the name of Buenos Ayres, on account of the extreme ſalubrity of the air. The city is built on a large plain, gently riſing from the little river. It is far from being ſmall, having at leaſt three thouſand houſes, inhabited by Spaniards and different caſts. Like moſt towns ſituated on rivers, its breadth is not proportional to its length. The ſtreets are, however, ſtraight, and of a proper breadth. The principal ſquare is very large, and built near the little river; the front anſwering to it being a caſtle, where the governor conſtantly reſides; and, with the other forts, has a garriſon of a

View of Buenos Ayres

of a thouſand regular troops. The houſes, formerly of mud-walls, thatched with ſtraw and very low, are now much improved, ſome being of chalk, and others of brick, and having one ſtory beſides the ground-floor, and moſt of them tiled*. The cathedral is a ſpacious and very elegant ſtructure, and is the pariſh-church for the greateſt part of the inhabitants; the other, at the farther end of the city, being only for the Indians. The chapter is compoſed of the biſhop, dean, archdeacon, and two canons, one by compoſition, the other by preſentation. Here are alſo ſeveral convents, and a royal chapel in the caſtle where the governor reſides. With regard to the civil and economical government, and the magiſtracy, it will be unneceſſary to enter into particulars, they being on the ſame footing as thoſe of the places already mentioned.

The climate here is very little different from that of Spain, and the diſtinctions between the ſeaſons are the ſame. In winter, indeed, violent tempeſts of winds and rain are here very frequent, accompanied with ſuch dreadful thunders and lightnings, as fill the inhabitants, though uſed to them, with terror and conſternation. In ſummer the exceſſive heats are mitigated by gentle breezes, which conſtantly begin at eight or nine in the morning.

The city is ſurrounded by a ſpacious and pleaſant country, free from any obſtruction to the ſight; and from theſe delightful fields the inhabitants are furniſhed with ſuch a plenty of cattle, that there is no place in America or Europe where meat is better or cheaper. It is the uſual cuſtom to buy the hides of the beaſt, the carcaſe being in ſome meaſure a gratuitous addition; and the meat is always fat and very palatable. The country to the weſt, ſouth, and north of Buenos Ayres lately abounded ſo greatly in cattle and horſes, that the whole coſt conſiſted in taking them; and even then a horſe was ſold for a dollar of that money, and the uſual price of a beaſt, choſen out of a herd of two or three hundred, only four rials. At preſent there is no ſcarcity, but they keep at a greater diſtance, and are more difficult to be catched, by reaſon of the prodigious havock made of them by the Spaniards and Portugueſe, merely for the ſake of their hides; the grand commerce of Buenos Ayres.

All kinds of game and fiſh are alſo here in the ſame plenty, ſeveral ſorts of the latter being caught in the river running by it; but the perexeyes are very remarkable, ſome of them being half a yard or more in length. Both the American and European fruits come to full perfection, and are in great plenty. In a word, for the enjoyments of life, eſpecially with regard to the ſalubrity of the air, a finer country cannot be imagined.

This city is ſituated about ſeventy-ſeven leagues from Cape Santa Maria, which lies on the north coaſt near the entrance of the river De la Plata; and its little river not having water ſufficient for ſhips of burden to come up to Buenos Ayres, they anchor in one of the two bays on the ſame coaſt. That fartheſt to the eaſtward is called Maldonado, and is nine leagues from the above cape: the other bay is, from a mountain near it, named Monte Video, and is about twenty leagues from it.

Within the government of Buenos Ayres are three other cities, namely, Santa Fé, Las Corientes, and Monte Video. The laſt, which was lately built, ſtands on the border of the bay, from whence it derives its name. Santa Fé lies about ninety leagues north-weſt of Buenos Ayres, between the Rio de la Plata and the Rio Salado, which, after running through the country of Tucuman, joins the former. The city is but ſmall, and meanly built, owing in a great meaſure to the inſults it has frequently ſuffered from the heathen Indians, who not long ſince pillaged it, maſſacring the inhabitants of the city, and thoſe of the neighbouring villages; and they ſtill keep the country under continual apprehenſions of another viſit. It is, however, the channel of the commerce be-

* Their houſes are commonly thatched with cocoa-nut-leaves and flags. A.

tween Paraguay and Buenos Ayres, for the herb camini and palos. The city De las Corientes, ſituated on the eaſtern banks of the river De la Plata, betwixt it and the river Parana, is about an hundred leagues north of the city of Santa Fé. Its magnitude and diſpoſition are both inferior to Santa Fé, and indeed has no marks of a city, except the name. Each of theſe cities has its particular corregidor, as lieutenant of the governor; and its inhabitants, together with thoſe of the neighbouring country, are formed into a militia, which, on any appearance of an invaſion from the Indians, aſſemble, and have often ſhewn a great deal of reſolution in repelling the attacks of their pagan enemies. It has already been obſerved, that part of the towns of the miſſions of Paraguay belong to this dioceſe, and, with regard to the royal juriſdiction, theſe miſſions univerſally depend on Buenos Ayres; thoſe which formerly belonged to the government of Paraguay having been ſeparated from it.

Having thus, with the government of Buenos Ayres, finiſhed my account of every thing worthy of notice in the audiences of Lima and Charcas, together with the juriſdictions included in their dioceſes, it now remains only to conclude my deſcription of the kingdom of Peru with an account of the kingdom and audience of Chili; but the many objects of importance in it ſo well deſerve to be fully treated of, that I thought proper to reſerve them for the following book; thoſe included in this, as I have mentioned in its place, merited a much greater prolixity: for from what has been ſaid in the firſt part of the province of Quito, ſome idea of the difference between the two with regard to the number of people, towns and villages, trade and commerce, may be conceived; the province of Quito having only one dioceſe, and part of another; whereas Lima contains one archbiſhopric, and four biſhoprics; and that of Charcas one biſhopric more than that of Lima. In the province of Quito only a few mines are worked, and thoſe to little advantage; whereas the mines of Lima and Charcas, by their immenſe riches, draw thither great numbers of traders and induſtrious people, and thus ſpread wealth and affluence through the whole country, by the briſk circulation of trade. It muſt, however, be owned, that the number of people in theſe provinces bear no proportion to their extent; and it is with too much truth ſaid, that they are in many places almoſt deſtitute of people; for ſuppoſing a corregidor to have twenty villages under his juriſdiction, yet if the leaſt extent of it be thirty leagues one way, and fifteen another, they muſt be very thin. For draw a parallelogram of that dimenſion, it will contain four hundred and fifty ſquare leagues of ground, and conſequently the ſhare of each village will be twenty-two ſquare leagues and a half. This calculation is made from the ſmalleſt diſtances, there being juriſdictions of a far greater extent; and others, which, though equal in dimenſions, have not twenty villages. What has been ſaid of the products and manufactures in each juriſdiction muſt be underſtood in a general ſenſe, we not having entered into many particulars made or produced in ſome towns, and not common to others, as may be obſerved in the deſcription of Quito. But theſe accounts, drawn from our own experience, and the relations of perſons of undoubted veracity, we hope will not prove unacceptable to the reader, who is deſirous of forming a true idea of theſe parts, which for their riches, fertility, prodigious extent, and many other particulars, merit the greateſt attention; eſpecially for the amazing ſucceſs which has attended the propagation of the Chriſtian religion, in countries formerly involved in ignorance and inhumanity.*

* It is ſuppoſed, that the Kings of Spain and Portugal have five times the number of ſubjects in their American ſettlements than in their reſpective kingdoms. Notwithſtanding which, you may travel in America twenty leagues together, and not ſee a hut, except you are in the neighbourhood of the great towns; ſo great are the tracts of lands poſſeſſed by each Prince.

BOOK VIII.

RETURN FROM LIMA TO QUITO; VOYAGE FROM CALLAO TO GUAYAQUIL, FOR PUTTING THAT CITY IN A POSTURE OF DEFENCE AGAINST THE ATTACK APPREHENDED FROM THE ENGLISH SQUADRON, UNDER COMMODORE ANSON. SECOND VOYAGE TO LIMA, AND FROM THENCE TO THE ISLAND OF JUAN FERNANDES, AND THE COAST OF CHILI: WITH AN ACCOUNT OF THAT KINGDOM, AND THE ADJACENT SEA, AND RETURN TO THE PORT OF CALLAO.

CHAP. I. — *Voyage from Callao to Paita, with nautical Remarks.*

THE time of our ſtay at Lima and Callao was taken up in the diligent execution of ſeveral commiſſions with which the viceroy had been pleaſed to honour us, for putting the coaſts and other parts of that kingdom in the beſt poſture of defence; that in caſe an Engliſh ſquadron ſhould make an attack *, ſo a vigorous reſiſtance might diſcourage any farther attempt of that nature. Having made the neceſſary diſpoſitions to the viceroy's ſatisfaction, and four men of war which had been ſent at the beginning of the ſummer to cruize off the coaſt of Chili, in order to attack the Engliſh ſquadron at their firſt appearance, being returned without the leaſt information of any foreign ſhips having been ſeen in thoſe ſeas; and the ſeaſon of the year now inclining to winter, when every one was of opinion, that it was utterly impracticable for Mr. Anſon and his ſhips to get round Cape Horn that year, if (as indeed we concluded) he had not already performed it; we deſired leave, as our longer ſtay could be of no ſervice, to return to Quito, in order to proſecute the original deſign of our voyage. This leave we, with ſome difficulty, obtained; by reaſon of the great want of officers in Peru, and the certain advice the viceroy received, that the Spaniſh ſquadron, under the command of Don Joſeph Pizarro, had not been able to get round Cape Horn. But at length, convinced that our ſtay would greatly retard the execution of His Majeſty's particular commands, and confident that on any ſudden exigency he would find the ſame alacrity in us to obey his orders, he was pleaſed to grant our requeſt, and diſmiſſed us in the moſt polite manner.

There happened at this time to be one of the largeſt merchant ſhips trading in the South Seas, at Callao, juſt ready to ſail for Guayaquil, called the Chaldas. On board this ſhip we embarked on the 8th of Auguſt 1741, and on the 15th of the ſame month anchored at Paita: continued our voyage from thence on the 18th, and on the 21ſt entered the harbour of Puna. We immediately ſet out for Guayaquil, and from thence continued our journey for Quito, which we reached on the 5th of September.

The courſe generally ſteered from Calloa to Paita, is firſt weſt-north-weſt till the ſhips are paſt the Feralones † of the iſland of Guara. From thence north-weſt and north-weſt one quarter northerly, to a latitude a little beyond the outermoſt iſland of Lobos, or Wolves. Afterwards they ſteer north and north-eaſt, till they make the continent within them, and which is continued in ſight till they arrive at the port of Paita; being very careful to keep at a proper diſtance from Ogujia, which is very low, and projecting a great diſtance into the ſea. Accordingly cautious navigators, after paſſing the iſlands of Lobos, ſteer a north courſe till they get ſight of that of Nonura.

* At this time Spain and England were at war.

† The Feralones are two old walls on the iſland of Guara, and ſerve as light-houſes.

The land of this whole coaſt is low; but there are two ſigns which evidently indicate its being near. Firſt the ſea-wolves, which are ſeen near theſe iſlands, and at three or four leagues diſtant from them. The ſecond is the great flocks of birds all along this coaſt, flying two or three leagues from the ſhore, in queſt of food. And though fogs are very frequent here, and ſo thick as to hide the land, yet its diſtance may be nearly known from theſe ſigns in the day-time; but at night more circumſpection is neceſſary on account of the extreme lowneſs of the ſhore. And though the iſlands of Lobos are ſomething higher than the coaſt, too much caution cannot be uſed in approaching them.

It is common in this voyage if the ſhip is intended to touch at Paita, and has not had ſight of the iſlands of Lobos in the day-time, when in their latitude, to lie-to all night. But if they do not propoſe to ſtop at Paita, proper attention muſt be given to the courſe, and the voyage continued. If the ſhip be bound to Paita, there is a neceſſity for making theſe iſlands, or the continent near them to the north, in order to avoid being carried beyond the port by the currents; as in ſuch a caſe a great deal of time would be loſt in getting back, both the wind and currents being contrary.

From Paita, the coaſt is always kept in ſight; but a careful look-out is neceſſary in order to diſcover the Negrilos, rocky ſhoals, projecting four or five leagues diſtant from the ſhore, and lying betwixt Paita and Cape Blanco, one of the points of Guayaquil bay. The winds during this whole paſſage are uſually ſouth, but in the ſummer, that is, from November to May, ſometimes veer as far as ſouth-eaſt. Near the coaſt is a periodical morning breeze, or faint eaſterly wind, which ſhifts round to the ſouth-eaſt or ſouth-ſouth-eaſt, and in this ſeaſon, at any diſtance from the coaſt, the ſouth winds are alſo faint; nor are the calms uncommon, though they are of ſhort continuance; but the briſas never reach ſo far: and this renders the voyage from Paita to Callao ſo very long in all ſeaſons. For if a ſhip ſtretches out to a great diſtance from the coaſt, the winds, even within ten or twelve leagues, ſhift from ſouth to ſouth-weſt, but if ſhe keeps along the ſhore and endeavours to perform her voyage by tacking, ſhe loſes on one what ſhe gained on another. Beſides, during the winter the currents ſet ſtrongly towards the north or north-weſt, and conſequently render the voyage ſtill more tedious. In ſummer there is here generally no current, or if any do ſet to the northward, it is ſcarcely perceived; the direction of the current in that ſeaſon being generally weſt. This proceeds from the briſas blowing from the north of the equator, though they are unable to change the ſet of the current to the ſouth as would be the natural conſequence, were it not for the reſiſtance it meets with from the waters agitated by the ſouth winds to the ſouthward of the equinoctial; but by meeting each other they run towards the weſt. There are, however, ſome ſhort intervals during the ſummer, when the currents ſuddenly change their direction, and run to the ſouthward, but at no great diſtance from the ſhore; and in the ſame inſtantaneous manner ſhift about to an oppoſite point; and this is the reaſon why moſt ſhips coming from Paita to Callao in this ſeaſon keep near the ſhore, and work up to windward, hoping, by the favourable change of the currents, to acquire that aſſiſtance which the winds deny.

At all times this voyage is of a moſt diſagreeable and fatiguing length; for though the diſtance, according to the latitude of theſe ports, be only one hundred and forty leagues, a ſhip is very fortunate to perform it in forty or fifty days; and if even after ſpending that time in continual labour, ſhe be not obliged to return again to Paita: ſuch accidents being very common; and it is nothing extraordinary to meet with two or three misfortunes of the ſame kind ſucceſſively, eſpecially if the ſhips make a great

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deal of lee-way, when it is often a twelvemonth's taſk. They relate here a ſtory to this purpoſe, that the maſter of a merchant ſhip, who had been lately married at Paita, took his wife on board with him, in order to carry her to Callao. In the veſſel ſhe was delivered of a ſon, and before the ſhip reached Callao, the boy could read diſtinctly. For after turning to windward, two or three months, proviſions growing ſhort, the maſter put into ſome port, where ſeveral months were ſpent in procuring a freſh ſupply; and after another courſe of tacking, the ſame ill-fortune ſtill purſued him; and thus four or five years were ſpent in tacking and victualling, to the ruin of the owner, before the ſhip reached Callao. This misfortune was in a great meaſure owing to the ill-conſtruction of the ſhip; and every other circumſtance tending to obſtruct her paſſage, the tranſaction has nothing very wonderful in it.

According to obſervations made by Don George Juan at Paita, in the year 1737, its latitude is 5° 5′ ſouth. It is a ſmall place, having only one ſtreet, and about one hundred and ſeventy two houſes; and theſe only of quinchas and canes covered with leaves; the only houſe built of ſtone being that of the governor. It has a pariſh church and a chapel dedicated to Our Lady of Mercy, and ſerved by a religious of that order. A little to the ſouthward of the town is a mountain, called from its figure Silla de Paita, or the ſaddle of Paita. The ſoil round Paita is wholly of ſand, and extremely barren; for beſides the total want of rain, it has not a ſingle river for the conveyance of water; ſo that it is entirely deſtitute of that neceſſary fluid, unleſs what is daily brought with great fatigue from Colan, a town on the ſame bay, four leagues north of Paita, and near which runs the river Chera, the ſame ſtream which waters Amotape. The Indians of the town of Colan are under an obligation of daily ſending to Paita, one or two balzes loaded with water, which is diſtributed among the inhabitants by ſtated proportions. From the ſame town Paita has alſo the greateſt part of its proviſions. The nature of the ſoil, and the ſituation of the place, render it extremely hot. Its inhabitants, who are about thirty-five or forty families, and conſiſt of Spaniards, Mulattoes, and Meſtizos, live chiefly by paſſengers going or returning from Panama to Lima. So that the town owes its whole ſupport to the harbour, which, as I have before obſerved, is the place where the cargoes of goods ſent from Panama are landed, together with thoſe coming from Callao to the juriſdictions of Piura and Loja.

In the bay of Paita, and that of Sechura, which lies a little farther to the ſouthern, ſuch large quantities of tollo are taken as to anſwer the demands of the provinces of the mountains, and part of thoſe of Quito and Lima. The ſeaſon for this fiſhery begins in October, when great numbers of barks go from Callao, returning when the ſeaſon is over. Fiſhing is alſo the conſtant employment of the Indians of Colan, Sechura, and the ſmall hamlets near the coaſt; theſe ſeas abounding in ſeveral kinds of fiſh, beſides the tollo, all palatable, and ſome delicious.

CHAP. II.—*Account of the Tranſactions at Quito: unhappy Occaſion of our ſudden Return to Guayaquil.*

ON our arrival at Quito, we made it our firſt buſineſs to join the French company, who were pleaſed to expreſs a great deal of joy at our return. Mr. Godin, during our abſence, had finiſhed the aſtronomical obſervations to the northward, and though Meſſrs. Bouguer and De la Condamine had alſo gone through them, yet they ſtill purpoſed to repeat them; for theſe able academicians, who had always ſhewn an indefatigable

indefatigable zeal for the perfection of the work, were particularly attentive in obſerving the greateſt obliquity of the ecliptic; at which obſervations we alſo aſſiſted; but ſeveral accidents hindered them from being carried on without interruption. They therefore thought it moſt agreeable to their character, and the commiſſion with which they had been honoured, to ſpend ſome time in aſcertaining this important point, than to leave the country before their obſervations were completed. Notwithſtanding their ſtay was attended with ſo much inconvenience and fatigue, they could not think of leaving, undetermined, a difficulty occaſioned by a certain motion which they obſerved in the ſtars. In order to aſcertain with the greateſt accuracy the quantity of the arch, they divided themſelves into two companies, Bouguer being at the head of one, and M. de la Condamine, accompanied by M. Berguin, at that of the other; the latter, while the geometrical menſuration was carrying on, applied himſelf with indefatigable labour, and admirable ſkill, in drawing maps of the country, in order to erect the ſignals in the moſt advantageous places. He alſo aſſiſted both companies in their menſurations of the two baſes, which ſerved to prove the accuracy of the operations. And, laſtly, he was preſent at making the aſtronomical obſervations. But before the repetition was undertaken, M. de la Condamine employed himſelf in erecting two obeliſks at the extremities of the baſe of Yaruqui, as monuments of this tranſaction: this ſpot having been the foundation of the whole work. Various were the ſentiments with regard to the inſcription proper to be engraved on them; and indeed the difficulties attending this particular, ſeemingly of no great importance, were ſuch, as could not be removed till the affair was entirely dropt, on account of other things of real concern, and which would admit of no delay. It was however unanimouſly concluded, that the whole affair ſhould be referred to His Majeſty's pleaſure after our arrival in Spain. Accordingly in the year 1746, the Marquis de la Enſenada, equally diſtinguiſhed as a ſtateſman, and a patron of real knowledge, being at that time ſecretary of ſtate for the Indies, ſent over, in His Majeſty's name, the following inſcription:

PHILIPPO V.
Hiſpaniarum, & Indiarum Rege Catholico,
LUDOVICI XV.
Regis Chriſtianiſſimi Poſtulatis, Regiæ Scientiarum
Academiæ Pariſienſis
Votis Annuente, ac Favente,
LUDOV. GODIN, PETRUS BOUGUER,
CAR. MARIA DE LA CONDAMINE,
Ejuſdem Academiæ Socii,
Ipſius Chriſtianiſſimi Regis Juſſu, & Munificentia,
Ad Metiendos in Æquinoctiali Plaga
Terreſtres Gradus,
Quo vera Terræ Figura Certius Innoteſceret,
In Peruviam Miſſi;
Simulque
GEORGIUS JUAN, S. JOHANNIS Hieroſolymitani Ord.
Eques, &
ANTONIUS DE ULLOA,
Uterque Navium Bellicarum Vice-præfecti, et Mathematicis Diſciplinis Eruditi,
Catholici

Catholici Regis Nutu Auctoritate Impenſa ad ejuſdem menſionis Negotium eodem
allegati Communi Labore, Induſtria, Conſenſu in hac Yaruquenſi
Planitie diſtantiam Horizontalem 6272 $\frac{551}{726}$ Paris.
Hexapedarum,
In Linea a Borea Occidentem verſus grad. 19 min.
25½ intra hujus & alterius
Obeliſci Axes Excurrentem,
Quæque ad Baſim primi Trianguli Latus Eliciendam & Fundamenti Toti Operi
jaciendum inſerviret, ſtatuere,
Anno CHRISTI MDCCXXXXVI. Menſe NOVEMBRI.
Cujus Rei Memoriam duabus hinc inde Obeliſcorum molibus extructis Alternum
conſecrari placuit.

" In the reign of His Catholic Majeſty, Philip V. King of Spain and the Indies; agreeable to the requeſt of His Moſt Chriſtian Majeſty Lewis XV. King of France, and in condeſcenſion to the deſire of the Royal Academy of Sciences at Paris, Lewis Godin, Peter Bouguer, Charles Marie de la Condamine, members of that academy, were, by the command and munificence of the Moſt Chriſtian King, ſent into Peru, to meaſure the terreſtrial degrees under the equinoctial, in order to obtain a more accurate knowledge of the true figure of the earth. At the ſame time, by the command, and at the expence of His Catholic Majeſty, were ſent, George Jûan, knight of the order of St. John of Jeruſalem, and Antonio de Ulloa, both lieutenants in the royal navy, and well acquainted with all the branches of the mathematics: during the whole proceſs of this menſuration they all equally ſhared in the fatigues, hardſhips, and operations; and with an unanimous conſent determined in this plain of Yaruqui a horizontal diſtance of 6272 $\frac{551}{726}$ Paris toiſes in a line whoſe direction was north 19° 25′ 30″ weſterly, and intercepted between the axes of this and the other obeliſk, as the baſe or ſide of the firſt triangle, and a foundation for the whole work. In the month of November 1736. In the memory of which tranſaction an obeliſk has been erected at each extremity of the ſaid baſe."

We had now been three months at Quito, waiting till Mr. Hugot, inſtrument-maker to the company, had finiſhed ſome indiſpenſable works in which he was then employed, that he might accompany us to the place where M. Godin, after finiſhing the obſervations, had left the inſtrument, which required ſome repairs in order for our making uſe of it in finiſhing our part of the work. But on the 5th of December 1741, when we were animated with the hopes of concluding our taſk in two or three days, the melancholy news arrived at Quito, that Paita had been pillaged and burnt by a ſquadron of men of war, commanded by Commodore Anſon; and was too ſoon confirmed in all its circumſtances, by letters from the corregidor and other officers of Piura, giving an account that on the 24th of November, at two in the morning, the Centurion man of war, being the Commodore's ſhip, had entered that harbour, and ſent her long-boat aſhore with forty armed men, under the advantage of the night, whereby the inhabitants and ſtrangers who happened to be in the place, were awaked from their ſleep by the ſhocking ſurpriſe of an invaſion, the firſt notice of which were given by the cries of a negro; ſo that filled with confuſion and terror, like perſons unable to recollect themſelves, moſt of them had leaped from their beds, and fled naked from their houſes, without knowing whether their enemies were in poſſeſſion of the town; or whether, by a vigorous reſiſtance they might not be repelled;

the mind, on ſo great and ſudden a perturbation, being but little capable of ſuch reflections.

Not ſo Don Nicholas de Salaza, the accomptant of Piura, who happened to be then at Paita, on ſome affairs of his office. This gentleman, attended only by a negro ſlave, with an equal preſence of mind and reſolution, threw himſelf into the little fort, built for the defence of that ſmall town, and fired two or three ſhot towards the place where he heard the noiſe of the oars. Upon this the long-boat ſtopped; but the fort was obliged to give over firing for want of hands to aſſiſt an officer who had ſhewn ſo generous an example of reſolution. The Engliſh, concluding very naturally, that the fort was alſo abandoned, landed about half a league north of the town, to which they immediately marched, and finding it forſaken, entered the fort, where, for fear of any ſurpriſe, they kept themſelves all night. But the inhabitants thought of nothing but ſaving their lives, and accordingly fled to a mountain, betwixt the Silla and the town, where they concealed themſelves, except a few ſlaves, who, finding that the enemy were all retired into the fort, took the advantage of the night, and boldly returned into the town, bringing off ſuch arms and effects of their maſters as the night would permit, hiding in the ſand what they found too heavy to carry up to the top of the mountain.

There was unfortunately then at Paita great quantities of meal, fruits, and brandy, conſigned to the provinces of the mountains, by the way of Piura; beſides other goods depoſited in the warehouſes to be ſent to Panama. There was alſo no ſmall quantity of gold and ſilver. As ſoon as daylight returned, the Engliſh left their retreat, and ſeeing every place forſaken, they began to enter the houſes, which are ſo many magazines for goods. It was not long before they met with a quantity of brandy and wine, of which, like men whoſe appetites are not to be governed at the ſight of plenty after long diſtreſs, they made a very licentious uſe, and became ſo greatly inebriated, that the mulattoes and negro ſlaves, ſeeing their condition, abandoned their fears, and became ſo familiar with the Engliſh ſailors, as to drink with them, whilſt others carried off hampers filled with the goods of their maſters, together with conſiderable quantities of gold, which they buried in the ſand. The long-boat, however, returned on board the ſhip, but her chief ſpoils conſiſted of proviſions; and the men employed in that ſervice regaled themſelves with a degree of intemperance equal to thoſe who guarded the fort.

The inhabitants of Paita, who ſtill timorouſly continued on the mountain, though in want of every thing, diſpatched an expreſs to Don Juan de Vinatea y Torres, the corregidor of Piura, and a native of the Canaries, who, agreeably to his known character of prudence and intrepidity, immediately aſſembled all the militia of that city and its dependencies, and haſtened by forced marches through a troubleſome ſandy road of fourteen leagues to Paita. The Engliſh had been three days maſters of Paita, when diſcovering theſe ſuccours, and being informed by the negroes and mulattoes that the militia of Piura, headed by a famous general, were coming to diſlodge them from the town; enraged at this, but wanting courage to defend what they had gained, or rather ſurpriſed, carried off whatever they could, and took their leave of the place by ungenerouſly ſetting fire to the houſes; an action which could reflect but little honour on the arms of their nation: but was rather a malicious tranſaction, to revenge on the poor inhabitants the coming of the militia, whom they did not dare to face. Nobody indeed imagined at that time that this proceeding was in conſequence of any orders iſſued by the commander, and it was afterwards known that he was under great concern for ſuch unjuſtifiable behaviour.

The corregidor of Piura, as he had been very active in the defence of Paita, ſo he loſt no time in ſending advice of the deſcent to the corregidor of Guayaquil, that he might

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put that city in a poſture of defence; it being natural to ſuppoſe, that the Engliſh would alſo make an attempt there, as it had always been attacked by every enemy who before infeſted thoſe ſeas. Accordingly the inhabitants of Guayaquil were ſoon in arms, and the beſt meaſures taken with the utmoſt expedition. But the force of the enemy being uncertain, no other ſhip having been ſeen at Paita than that which entered the port, the corregidor and magiſtrates applied for aſſiſtance to the preſident and audience of Quito; who, among other meaſures for ſecuring Guayaquil from the rage of the Engliſh, required us in His Majeſty's name, to repair immediately to that city, and take upon us the command of the troops, all the juriſdictions having received orders to ſend their contingencies; and to direct the works to be raiſed, and the trenches neceſſary to be thrown up in the places moſt advantageous and moſt expoſed.

As affairs of this nature admit of no delay, we immediately prepared for the journey, and leaving Quito the 16th of December, arrived at Guayaquil on the night of the 24th. But the paſſage of the mountains was inconceivably fatiguing; the natural difficulty and badneſs of the roads, it being the beginning of winter, having been greatly increaſed by the violent rains.

Having gone through all the neceſſary operations, and taken the moſt proper meaſures to defeat the attempts of an enemy, and ſuch as we had the pleaſure of ſeeing approved by the council of war held in that city, our longer ſtay only hindered the concluſion of our grand deſign, and was of no further uſe here, eſpecially as it was then certainly known that the enemy's ſquadron had ſailed for Manta, the coaſts of which, though in the juriſdiction of Guayaquil, are nearly twenty-eight leagues north of that city, and conſequently to leeward of it. It was alſo known that the fleet intended to proceed from Manto to Acapulco. Impatient at the loſs of time, we applied to the ſame council of war, who were pleaſed to grant leave for one of us to return to Quito, in order to complete the obſervations ſtill remaining, that on any ſubſequent exigency we might be the more diſengaged; but at the ſame time thought it neceſſary that one of us ſhould continue on the ſpot to act on any ſudden emergency. The matter was ſoon agreed on between Don George Juan and myſelf, namely, that he ſhould remain as commandant of Guayaquil, while I returned to continue the obſervations at Quito. But before I proceed, it will not be amiſs to give an account of the tranſactions of the enemy's ſquadron in thoſe ſeas, according to the depoſitions of ſome priſoners whom they ſet aſhore at Manta.

This ſquadron, at its entrance into the South Sea, beſides being diſperſed, was in a very ſhattered condition; but arrived ſucceſſively at the iſland of Juan Fernandes, to the number of four ſhips, from fifty to ſixty guns, the Centurion and the Glouceſter, a frigate between thirty-ſix and forty guns, and a victualler. Theſe ſhips came to an anchor cloſe to the ſhore, their crews being very much diminiſhed, and thoſe which remained very ſickly. Tents were pitched, a kind of village built with an hoſpital for the recovery of their men. They arrived at this iſland in the month of June, and the commander was ſo quick in his proſecution of hoſtilities, that as ſoon as a number of ſailors ſufficient to man the frigate were recovered, ſhe was ſent out on a cruize; and this being in the common track of ſhips bound from Callao to the coaſt of Chili, they had the good fortune to take two or three, all of them richly laden, particularly the Aranzaza, one of the largeſt employed in thoſe ſeas. Great numbers of men died on the iſland of Juan Fernandes, but on the recovery of the remainder, and the ſhips being careened, they ſunk the victualler, and ſome time after the frigate, putting the guns and proviſions on board the Aranzaza. After this the whole ſquadron put to ſea upon freſh enterpriſes, and about eight or nine veſſels fell into their hands; and between

Paita and the iſland of Lobos, they took a coaſt ſhip of great value. The ſacking of Paita was the laſt act of hoſtility they committed in theſe parts; for the Engliſh commodore having procured intelligence of the ſhort time requiſite to alarm Guayaquil, and finding that there had been abundantly more than ſufficient, prudently abandoned a deſign, againſt which he judged inſuperable precautions had been taken; and indeed had he made an attempt, in all probability thoſe ſpirits would have been depreſſed, which were ſo greatly elevated at their ſucceſs in Paita.

After leaving Paita they ſteered for the coaſt of Manta, where they put the priſoners they had taken in the merchant ſhips on board a long-boat, to make the beſt of their way to the land; the ſhip, keeping ten or twelve leagues from the ſhore; but many of the ſailors, negroes, and mulattoes, who had nothing to loſe, voluntarily entered with them. They now determined to ſail for the Philippines, in order to intercept the galleon in her return to thoſe iſlands, and which was to ſail from Acapulco ſome time in January. This was doubtleſs the moſt advantageous ſcheme that could be formed in their circumſtances. But in this they were diſappointed by the viceroy of Mexico; who, from the intelligence ſent by the viceroy of Peru to all the ports on the coaſt of the South Sea, as well as by expreſſes diſpatched from Guayaquil and Atacames to Panama, deferred ſending the ſhip that year; which the enemy being appriſed of, they burnt the Aranzaza, as they had before the other prizes, and continued their voyage towards the Philippines, where by a long perſeverance in a moſt tedious cruize they accompliſhed their deſign. For the Acapulco ſhip returning when all the danger was imagined to be over, fell in with the Centurion, and after a ſhort, though ſmart engagement, was taken.

But, to re-aſſume the thread of the narrative, to which I hope this has been no diſagreeable interruption. On the fifth of January 1742, I ſet out from Guayaquil for Quito, being the very worſt time of the year for performing that journey; and, as ſuch, I experienced it by ſeveral misfortunes. In one of the rivers we were obliged to ford, the two mules which firſt entered were ſwept away by the current, and that which carried my portmanteau was loſt; and the other, on which an Indian rode and led the former, ſwam with great difficulty to the ſhore, and the Indian ſaved himſelf by holding faſt by the creature's tail; in which manner they were carried near a quarter of a league below the ford. If the travelling up the mountains was not attended with ſuch imminent danger, it was extremely troubleſome, a ſpace of about half a league having taken me up from ſeven in the morning till ſeven in the afternoon, the mules, though light, falling at every ſtep, nor was it an eaſy matter to make them riſe; and ſoon after the creatures became ſo fatigued, they even ſunk under their own weight. At length I reached Quito on the nineteenth of the ſame month; but had hardly alighted from the mules with the hopes of reſting myſelf after theſe dangers and fatigues, when the preſident informed me, that three days before he had ſent away an expreſs, with letters from the viceroy, directing us to haſten to Lima with all poſſible expedition; and charging him in particular to provide immediately every thing neceſſary that our journey might not be a moment delayed. It was therefore no time to think of reſt; and, accordingly, after making ſuch proviſions as were abſolutely neceſſary, I ſet out on the 22d of the ſame month, and a third time croſſed that difficult mountain in my way to Guayaquil, where, having joined Don George Juan, who was included in the orders, we travelled night and day, with a diſpatch anſwerable to the governor's impatience, all the towns on the road having received orders to keep beaſts in readineſs, that we might not be detained a moment; and accordingly we reached Lima the 26th of February. In the meantime, the viceroy had ordered a ſquadron of four men of war

to

to ſail from Callao to Panama, for the defence of that place, which touched at Paita, in order to gain intelligence of the enemy's ſhips, having orders to attack them if poſſible; but, as we have already obſerved, they were ſailed to the coaſt of Acapulco. On our arrival, the viceroy was pleaſed to expreſs great ſatisfaction at our diſpatch, and to honour us with ſeveral commiſſions ſuitable to the exigence of affairs; giving us the command of two frigates which he had ordered to be fitted out for the ſecurity of the coaſt of Chili, and the iſland of Juan Fernandes, againſt any reinforcement coming to the enemy. For though Commodore Anſon had made no ſecret of his intentions to the priſoners, and they had eagerly publiſhed them, no dependance could be had on informations given out by the enemy himſelf, and which were the more ſuſpicious as he told them openly. Beſides, it was well known, that this ſquadron originally conſiſted of more ſhips; and we were apprehenſive, that though the remainder had failed of reaching theſe ſeas, yet by perſeverance, and a ſecond effort, they might ſucceed.

Commodore Don Joſeph Pizarro had alſo been diſappointed in getting into theſe ſeas this year, though he had attempted it in a ſingle ſhip called the Aſia; but was obliged to put back to Buenos Ayres with the loſs of one of his maſts, and another was carried away juſt at the mouth of the Rio de la Plata. Theſe diſappointments rendered it the more neceſſary for the viceroy to provide for the defence of the coaſt of Chili, as all ſhips muſt paſs near it in their courſe to Peru.

CHAP. III. — *Voyage to the Iſland of Juan Fernandes; with an Account of the Seas and Winds in that Paſſage.*

AMONG other precautions taken by the vigilant viceroy of Lima for the defence of the South Sea, he fitted out, as we have juſt mentioned, two frigates for cruizing on the coaſt of Chili; and gave the command of one, called Nueſtra Senora de Belen, to Don George Juan, and appointed me for the other, called the Roſa: they had been both merchant ſhips employed in theſe ſeas, all the King's ſhips being ſent in the Panama ſquadron. They were between ſix and ſeven hundred tons: each carried thirty guns on one deck, and three hundred and fifty men, all picked and expert ſailors. The ſhips were alſo prime ſailors: ſo that our force was, in all reſpects, ſufficient for the ſervice on which it was employed; and, with the aſſiſtance of Providence, would doubtleſs have anſwered the viceroy's expectations.

On the fourth of December 1742 we got under ſail, intending to ſteer firſt to the iſland of Juan Fernandes. Our courſe was from ſouth-weſt one quarter weſterly, to ſouth one quarter weſterly, according as the winds permitted, which were continually between the eaſt-ſouth-eaſt and ſouth-ſouth-eaſt, but not always of the ſame ſtrength; ſometimes ſhort calms intervened, and, at others, ſudden ſqualls, but did us no great damage. This courſe was continued till the 27th of the ſame month, when, being in the latitude of 30°, and a little more than 15° weſt of Callao harbour, and the wind at north-weſt, we altered our courſe, ſteering eaſt-ſouth-eaſt, and eaſt, till we made the iſland without that of Juan Fernandes. This happened on the 7th of January 1743, at three in the evening; the ſouth point of the iſland bearing north-eaſt, one quarter eaſterly, and the north-weſt point north-eaſt. We now continued ſteering eaſt, one quarter northerly, and the next day, at eleven in the morning, we had ſight of the other iſland, called De Tierra, bearing eaſt-north-eaſt. And in the following night, having weathered the north point, we the next day came to an anchor in the bay.

During

During our paſſage from Callao to the tropic, we had light winds, often interrupted with ſhort calms; but after we had croſſed the tropic, they were more ſettled, ſtronger, and ſqually, but not dangerous, being of ſhort continuance. But, as I have already noticed in another part, they always blow from the ſouth-eaſt and never from the ſouth-weſt, till you are fifteen or twenty degrees weſt of the meridian of Callao. When we concluded ourſelves in the proper latitude for ſtanding towards the iſlands, and found the wind at north-weſt, we ſteered eaſt, in order to reach the meridian of Juan Fernandes. The wind then ſhifted round from weſt-north-weſt to weſt-ſouth-weſt and ſouth, and afterwards returned to its uſual rhumbs of ſouth-eaſt, ſouth-ſouth-eaſt, and ſouth-eaſt, one quarter eaſterly. On the 27th of December, the wind again veered to the north-weſt, and continued ſo the whole day; the two ſucceeding days at north-north-weſt and north-weſt, but on the 30th veered to the weſt-north-weſt. On the 31ſt it ſhifted to the ſouth-ſouth-weſt, and on the 1ſt of January veered round to the ſouth, ſouth-ſouth-eaſt, and ſouth-eaſt. Thoſe, therefore, who endeavour to gain ſuch winds, ſtand off from the coaſt till they fall in with them; and this ſometimes happens at a greater diſtance than at others; I mean during the ſummer; for in winter a different courſe is neceſſary, as we ſhall explain in the ſequel.

The atmoſphere of theſe ſeas is generally filled with thick vapours to a conſiderable height: ſo that often for four or five days ſucceſſively, there is no poſſibility of obſerving the latitude. Theſe fogs the ſailors call Sures Pardos, and are fond of them, as they are a ſure ſign that the wind will be freſh and conſtant, and that they ſhall not be troubled with calms. At this time it is very common to ſee the horizon filled with a dark cloud, but of no dangerous conſequence, except freſhening the wind a little more than uſual, and a ſhort ſhower of rain; the weather, in four or five minutes, becoming as fair as before. The ſame thing preſages the turbonada, or ſhort hurricane; for the cloud is no ſooner formed on the horizon, than it begins, according to the ſailor's phraſe, "to open its eye," i. e. the cloud breaks, and the part of the horizon where it was formed becomes clear. Theſe turbonadas are moſt common after you are paſſed the 17th or 18th of latitude.

Near the tropic, that is, between the parallels of fourteen or ſixteen and twenty-eight degrees, calms greatly prevail during the months of January, February, and even March; and in ſome years more than others; but near the coaſt they are not ſo common, on account of the land breezes, which are always between the ſouth-eaſt and eaſt-ſouth-eaſt. Formerly, and even till within theſe few years, the voyage to and from Callao to Chili, was rarely performed in leſs than a twelvemonth; owing to a fear of ſtanding off to a great diſtance from the coaſt; for by tacking along the ſhore they made but little way, and, conſequently, laid the ſhips under a neceſſity of putting into the intermediate harbours for water and proviſions; but an European pilot making his firſt voyage in the uſual manner, obſerved that the courſe of the currents was from the weſt and ſouth-weſt, whence he concluded that winds from thoſe quarters might be found farther off at ſea. Accordingly, in his voyage, he ſtood off to a great diſtance, in order to fall in with thoſe winds, and had the ſatisfaction to find that he was not miſtaken; ſo that he reached Chili in little more than thirty days. This being ſo far ſhort of the uſual term, he was ſuſpected of ſorcery, and ever after called Brujo, a ſorcerer. From this report, and the evidence of the dates of his papers, perſons of all ranks were perſuaded that he ſailed by magic, and the Inquiſition cauſed him to be apprehended; but, on examining his journals, they applauded his ſagacity, and were convinced, that if others did not perform the ſame voyage with equal diſpatch, it was owing to their timidity in not ſtretching off to a proper

diſtance from the coaſt as he had done. And thus he had the honour of leading the way in that expeditious courſe, which has ever ſince been followed.

In all this paſſage you have an eaſy ſea, the ſwell coming ſometimes from the ſouth-eaſt, ſouth or eaſt being the points from whence the wind blows; at others, from the ſouth-weſt and weſt, particularly after you are ten or twelve degrees from the coaſt. And it is only near the iſland of Juan Fernandes that you meet with a hollow ſea. The courſe of the waves is there ſufficiently manifeſt; for, on quitting the coaſt of Callao to about ſixty degrees farther to the ſouth, their courſe is to the northwards: but from between the parallels of ſixteen and twenty degrees, their courſe is imperceptible; while in higher latitudes they run with ſome force ſouth and ſouth-weſt, and with a greater velocity in winter than in ſummer; as I know from my own experience, having, in my ſecond voyage to Chili, in the year 1744, at the end of October, and beginning of November, taken the greateſt care, that the diſtances between the knots on the log line ſhould be forty-ſeven Paris feet and a half, for meaſuring the ſhip's way; but every day found, that the obſerved latitude exceeded the latitude by account ten or fifteen minutes. The ſame obſervation was made by Don George Juan, in both his voyages; as well as by the captain and officers of the French ſhip, in which I returned: ſo that the reality of the courſe of the ſea is proved beyond exception; and, in this manner, it continues to the 38th or 40th degree of latitude.

In the latitude of 34° 30′ and 4° 10′ weſt of Callao, you meet with a track of green water, extending north and ſouth, and along which you ſail above thirty leagues. Probably it runs to a great diſtance in that ſea, being found in every latitude to the coaſt of Guatemala; but not always under the ſame meridian, winding away north-weſt. It is alſo met with in a higher latitude than that of Juan Fernandes; and it has alſo been obſerved by ſhips in their courſe to Chiloe, or Baldivia.

In this paſſage, though part of it be at ſuch a great diſtance from the land, we meet with a kind of birds called Pardelas, which diſtinguiſh themſelves from all other ſpecies, by venturing ſo far from the land. They are ſomething larger than a pigeon; their bodies long; their necks ſhort; their tails of a proper proportion, and their wings long and ſlender. There are two ſorts of theſe birds, and of different colours, one parda or brown, from whence they derive their name; the other black, and called Pardela Gallinera, but in other circumſtances they are entirely the ſame. A ſmaller bird is alſo ſeen in theſe ſeas, called Alma de Maeſtre; it is white ſpotted with black, and has a long tail; but it is not ſo common as the Pardelas: they are moſt frequent in ſtormy weather. Within ten leagues of the iſlands of Juan Fernandes are ſeen ſome balenatos, or ſmall whales; and at near the ſame diſtance, ſea-wolves; but the latter ſeldom go from the ſhore.

Though this ſea has not been improperly dignified with the appellation of Pacific, with regard to the interval between the tropics; yet that particular cannot with any juſtice be applied to it, if conſidered in its whole extent; tempeſtuous weather being equally common in the latitudes of twenty and twenty-three degrees in the South Sea, as in the oceans of Europe; and in higher latitudes ſtorms are more frequent and violent. I am inclined to think that the firſt Spaniards gave it the name of the Pacific Sea, from their being greatly pleaſed with its ſmoothneſs, and the gentleneſs of the winds in their firſt voyages, concluding that it was ſo in every part; but the fury of the winter ſtorms, and the roughneſs of the ſea, which are equal to thoſe in any other parts, abundantly demonſtrate that they formed a judgment too haſtily.

Along theſe coaſts and the adjacent ſea, the winter begins at the ſame time as at Lima; that is, in the month of June laſting till October and November; but its greateſt violence

violence is paſt in Auguſt or September. During the whole winter ſeaſon there is no dependance on being ſafe from ſtorms, which riſe with a ſudden rapidity; and in all latitudes beyond forty degrees, the winter ſets in conſiderably ſooner, even at the beginning of April, and is alſo obſerved to laſt longer.

The winter in all latitudes beyond twenty degrees is uſhered in by northerly winds. They are not indeed fixed like thoſe of the ſouth, though common to the ſeaſon. They always blow with great violence, but not always with the ſame degree, being leſs ſtrong in the beginning than in the depth of winter, when their rage ſtrikes the moſt reſolute with horror, and raiſes ſuch enormous waves, that the atmoſphere is crouded with vapours, and theſe turn to a drizzling rain, which laſts as long as the ſtorm continues. It often happens that theſe violent north winds, without the leaſt ſign of an approaching change, ſhift round inſtantly to the weſt, which change is called the traveſia, but continue to blow with the ſame force. Sometimes indeed this ſudden change is indicated by the horizon clearing up a little in that quarter; but in ſeven or eight minutes after the appearance of this ſmall gleam of light, a ſecond ſtorm comes on; ſo that when a ſhip is labouring againſt the violence of a ſtorm from the north, the greateſt care muſt be taken, on the leaſt appearance, to prepare for the traveſia; indeed its rapidity is often ſuch as not to allow time ſufficient for making the neceſſary preparations, and the danger is ſufficiently evident if the ſhip has her ſails ſet, or is lying-to.

In the month of April 1743, in the latitude of forty degrees, I had the misfortune of experiencing the fury of a ſtorm at north, which laſted in its full violence from the 29th of March till the 4th of April. Twice the wind ſhifted to the traveſia, and veering round to the ſouthward, returned in a few hours to the north. The firſt time it ſhifted to the weſt, the ſhip, by the vortices formed in the ſea by this ſudden oppoſition to the courſe of its waves, was ſo covered with water from head to ſtern, that the officers who were on the watch concluded ſhe had foundered; but fortunately we had our larboard tacks on board, and by a ſmall motion of the helm, the ſhip followed the change of the wind, and brought-to without receiving any damage; whereas we ſhould otherwiſe in all probability have been loſt. Another circumſtance in our favour was, that the wind was ſome points to the weſtward of the north. For though theſe winds are here called nortes, they are generally between the north and north-weſt, and during their ſeaſon, veering in ſmall ſqualls to the north, and in others to the north-weſt. Sudden calms alſo often intervene; but if theſe happen before the wind has paſſed the traveſia, it returns in about half, or at leaſt an hour with redoubled fury. Theſe dangerous variations are however indicated by the thickneſs of the atmoſphere, and the denſe clouds in the horizon. The duration of theſe ſtorms is far from being fixed or regular, though I well know ſome pilots here will have it, that the north wind blows twenty-four hours, and then paſſes to the traveſia; that it continues there with equal violence three or four hours, accompanied with ſhowers, which abate its firſt violence; and that it then veers round till it comes to the ſouth-weſt, when fair weather ſucceeds. I own indeed that I have in ſeveral voyages found this to be true; but at other times I experienced, that the ſucceſſive changes of the wind are very different. The ſtorm at north I before mentioned, began March the 29th, at one in the afternoon, and laſted till the 31ſt at ten at night, which made fifty-ſeven hours; then the wind ſhifted to the traveſia, where it continued till the 1ſt of April without any abatement, that is, during the ſpace of twenty-two hours. From the weſt, the wind veered round to the weſt-ſouth-weſt and ſouth-weſt, ſtill blowing with its former violence. Hence a ſhort calm ſucceeded; after which, it a ſecond time ſhifted to the north, where it continued blowing with its former fury fifteen or twenty hours; then came on a ſecond traveſia;

and ſoon after its violence abated, and the next night ſhifted from ſouth-weſt to ſouth-eaſt. Thus the whole continuance of the ſtorm was four natural days and nine hours; and I have ſince met with others of the ſame violence and duration, as I ſhall mention in their proper place. What I would infer from my own experience, confirmed by the information of ſeveral pilots, is, that the duration of theſe ſtorms is proportional to the latitude; being between twenty and thirty degrees, neither ſo violent nor laſting as between thirty and thirty-ſix; and ſtill encreaſing in proportion as the latitude is greater.

Theſe winds have likewiſe no regular or ſettled period, the interval betwixt them being ſometimes not above eight days; at others much longer; nor do they always blow with the ſame violence; but are moſt uncertain in the winter, riſing ſuddenly when leaſt expected, though not blowing always with the ſame force.

In this ſea a change of the wind from north to north-eaſt, is a ſure ſign of ſtormy weather; for the wind is never fixed in the north-eaſt, nor does it ever change from thence to the eaſt, its conſtant variation being to the weſt or ſouth-weſt, contrary to what is ſeen in the northern hemiſphere. Indeed in both the change of the wind uſually correſponds with the courſe of the ſun; and hence it is, that as in one hemiſphere it changes from the eaſt to ſouth, and thence to the weſt, conformably to the courſe of the luminary, ſo in the other it changes for the ſame reaſon, from the eaſt to north, and afterwards to weſt.

It is an old obſervation among the pilots of this ſea, that a day or two before the north wind begins to blow, there is always ſeen along the ſhores, and about the ſhips, a ſort of ſea fowl called Quebrantahueſſas, i. e. oſſifrage, or break-bones. Theſe birds ſeldom appear at other times. I am little inclined to believe, much leſs to propagate any vulgar report: but here I muſt declare, that after repeated obſervations, in order to diſcover the truth or falſity of this aſſertion, I always ſaw them before every ſtorm I met with here; and ſometimes even a day before, when there was not the leaſt appearance of the wind's coming about to the north, and as the winds increaſed, great numbers of them gathered about the ſhip, ſometimes flying round her, at others ſettling on the waves, but always kept near the ſhip, till fair weather returned. It is ſtill more ſingular, that they are never ſeen either on the ſea or land, except in ſtormy weather; nor is it known where they hide themſelves when is it fair, that they ſhould ſo immediately cover, as it were, the ſea, when their natural inſtinct informs them of the approach of a north wind.

This bird exceeds the ſize of a large duck, has a ſhort thick arched neck, with a large head and a thick but ſhort bill, a ſmall tail, a riſing back, large wings and ſmall legs. They are by their plumage divided into two different kinds, one being white, ſpotted with dark brown, and the upper part of its wings entirely of the latter colour: the breaſt of the other, together with the inſide of the wings, the whole head, and the lower part of the neck, is white; but the back, the upper parts of the wings and neck, of a very dark brown, and are hence called Lamo prieto (Black-backs). The laſt kind are by the pilots accounted the moſt certain ſign, the others being often ſeen without any alteration of weather immediately ſucceeding. I well knew a pilot here, who was a native of Callao, a man of indefatigable curioſity and exactneſs, never omitting to inſert in his journals the moſt minute circumſtances. His name was Bernardo de Mendoſa, and with him theſe fowls were conſidered as ſo ſure a ſign, that when he was in any of theſe ports, and his ſhip ready to put to ſea, it was his conſtant cuſtom to take a walk on the ſhore, to ſee whether he could perceive any of them in the offing; and if he did, he

continued in the harbour till the tempeſt was over; and he aſſured me that his conforming to this obſervation had been of the greateſt advantage to him; relating, in confirmation of his opinion, that being once at Baldivia, the governor, ſo far from regarding his apprehenſions from ſuch preſages, turned them into ridicule, and inſiſted on his putting to ſea, but was ſoon convinced that theſe omens were not chimeras; for the veſſel was hardly out of the harbour, when a ſtorm at north came on with ſuch violence, that it was with the utmoſt difficulty ſhe was ſaved from being wrecked in that bay; and this would infallibly at laſt have been the conſequence, had the ſtorm continued ſome time longer; for, even when the wind abated, they found it hardly poſſible to carry her into the harbour to repair the damages ſhe had received.

Other obſervations relating to theſe northerly winds are, that they always blow when the Sures are in their ſtrength, in the higher latitudes, and alſo between the parallel of 20° and that of Panama, it being then winter in thoſe climates; and are alſo found in latitudes beyond 20°, but never nearer to the equinoctial. Another obſervation is, that during the time of the briſas, between Panama and the equinoctial, theſe winds are never felt in any part of the Pacific Sea, the ſouth winds alone prevailing there. Laſtly, it is obſerved, that within thirty or forty leagues of the coaſt of Chili, while one part is agitated with ſtorms at north, the ſouth winds freſhen in another. This, however ſingular it may appear, is no more than what was experienced by the three ſhips, Eſperanza, Belen, and Roſa, which being at the mouth of the Bay of Conception, the latter took her leave of them, and bore away with a freſh gale at ſouth to Valparaiſo, whilſt the others who ſteered for the iſlands of Juan Fernandes, were overtaken in their paſſage by a ſtorm at north.

As in ſummer the ſouth winds generally ſhift between the ſouth-ſouth-eaſt and eaſt-ſouth-eaſt, ſo in winter they continue for ſome time between the ſouth-weſt and ſouth; conſequently there is a neceſſity, in the latter ſeaſon, to ſtand out to ſuch a great diſtance from the coaſt in queſt of them, as muſt be done in ſummer.

CHAP. IV. — *Account of the Iſlands of Juan Fernandes. Voyage from thoſe Iſlands to Santa Maria, and from thence to the Bay of Conception.*

THE iſlands of Juan Fernandes, which, on account of their ſituation, belong to the kingdom of Chili, are two in number; one, as lying farther to the weſt, is diſtinguiſhed by the epithet De Afuera; and the other, as nearer the land, or to the eaſtward, is called La de Tierra. The former, which is ſomething above a league in length, is nearly of an oval figure, and the land very high, ſo that it has the appearance of a round mountain; and its ſteepneſs on all ſides renders it every where almoſt inacceſſible. Several large caſcades tumble from its ſummit, and the water of one of them, after a ſucceſſion of long falls among the rocks on the ſouth-weſt ſide of the iſland, precipitates itſelf into the ſea with ſuch amazing impetuoſity, that its froth may be ſeen at three leagues diſtance. The longitude of this iſland, according to the reckoning of Don George Juan, admitting the currents to ſet towards the ſouth-weſt, is 3° 20′ W. from the meridian of Callao; but, according to my computation, 3° 27′. By the coaſt we ſteered from the meridian De Afuera till we reached La de Tierra, we concluded the diſtance between thoſe iſlands to be thirty-four leagues.

The iſland De Tierra, which is four hundred and forty leagues to the north of Cape Horn, is between three or four leagues from eaſt to weſt, which is its greateſt length.

It is for the moſt part high land, but not deſtitute of ſome plains, though theſe are part of the mountains themſelves. Its valleys are full of trees, and ſome of them an excellent timber. Here is likewiſe the piemento tree, reſembling the chiapa in New Spain. The plains and little hills produce a ſort of ſtraw, reſembling that of oats, and growing higher than the uſual ſtature of a man. The waters, of which ſeveral ſtreams fall from the eminences into the ſea, is very light, creates an appetite, and, among other medicinal qualities, is excellent againſt indigeſtion. Here are many dogs of different ſpecies, particularly of the greyhound kind; and alſo a great number of goats, which it is very difficult to come at, artfully keeping themſelves among thoſe crags and precipices, where no other animal but themſelves can live. The dogs owe their origin to a colony ſent thither, not many years ago, by the preſident of Chili, and the viceroy of Peru, in order totally to exterminate the goats, that any pirates or ſhips of the enemy might not here be furniſhed with proviſions. But this ſcheme has proved ineffectual, the dogs being incapable of purſuing them among the faſtneſſes where they live, theſe animals leaping from one rock to another with ſurpriſing agility. Thus far, indeed, it has anſwered the purpoſe; for ſhips cannot now ſo eaſily furniſh themſelves with proviſions here, it being very difficult to kill even a ſingle goat.

Very few birds frequent this iſland; and, though we found ſeveral white feathers on the ground, and alſo parts of carcaſes, which ſeemed to have been gnawed by the dogs, we ſaw but very few flying, and thoſe wholly black. It is not indeed improbable but theſe iſlands may be the winter retreats of ſome kinds of birds, which on the approach of ſummer remove to another climate.

In this iſland are mountains of a great height; and the ſides of thoſe towards the north are covered with trees of good timber: but few or none are ſeen on thoſe of the ſouth part, except in the breaches and valleys, owing doubtleſs to the piercing violence of the ſouth winds, which deſtroys them or checks their growth. On the other hand, every part is covered with tall graſs or ſtraw, already mentioned. Among the various ſorts of trees with which the iſland is decorated, there are none of the American fruit-trees, owing to the coldneſs of the climate, which is increaſed by the violence of the winds, ſo that even the heats of ſummer are moderate.

In this iſland are three harbours or bays; but thoſe on the weſt and eaſt ſides have only water ſufficient for ſmall veſſels, ſo that the only one proper for large ſhips is that on the north, or rather north-eaſt, ſide of the iſland. The latter, which is properly called Juan Fernandes, conſiſts of a bay formed by the coaſt, but expoſed to the north and north-eaſt winds, ſo that in winter no ſhip can lie ſafely in it; and even in ſummer it is not free from danger, on account of the great depth of water; for within the diſtance of a cable's length or two from the ſhore it has fifty fathoms, and growing deeper as the diſtance increaſes. To this muſt alſo be added the badneſs of the ground, which being of ſand, and a tenacious mud, mixed with ſhells and gravel, the cables are greatly rubbed by it, and conſequently the anchorage unſafe. The ſhips are alſo expoſed to continual ſqualls cauſed by the Sures, which produce a very troubleſome ſea; violent currents likewiſe ſet into the bay, and form dangerous eddies. Laſtly, the ſteepneſs of the coaſt renders it very difficult to be approached on account of the daſhing of the waves againſt it; and accordingly the only ſhips that put into this port are ſuch as belong to pirates, or the enemy, this iſland being the ſole refuge for them in the South Seas: and they expoſe themſelves to theſe dangers, merely through the neceſſity of taking in water and wood, refreſhing their crews, and furniſhing themſelves with fiſh, which is caught here in great abundance.

Theſe foreign ſhips, which, in order to refreſh their crews after the fatigues of ſo long a voyage, and the dangers of weathering Cape Horn, make for the harbour of Juan Fernandes, are very careful to ſecure themſelves againſt the above-mentioned dangers, and therefore ſail up to the fartheſt part of the bay, where they moor with an anchor in the water, and another on the ſouth-weſt ſhore. But even this precaution is not ſometimes ſufficient to ſecure them, as appears from the wrecks of three ſhips; two of which have been long there, but the other of a more recent date.

The iſland De Afuera is every where prodigiouſly high land, and the ſhores ſo ſteep and craggy as to afford no convenient landing-place; which, together with its having no harbour, prevents all ſhips, whether thoſe of the enemy, or the country, from touching at it.

The ſea, all around the iſland De Tierra, may be ſaid to be filled with ſea-wolves, of which there are obſerved to be three principal ſpecies; the firſt are ſmall, not being above a yard in length, and their hair a dark brown: thoſe of the ſecond are about a toiſe and a half in length, and of a greyiſh brown colour: and thoſe of the third are in general two toiſes in length, and the hair of a pale aſh-colour. The head of theſe creatures is too ſmall in proportion to the reſt of their body, and terminates in a ſnout; which, bearing a great reſemblance to that of a wolf, they have acquired the name. The mouth is proportioned to the head; but the tongue is very thick, and almoſt round. They have a row of large pointed teeth in each jaw, two thirds of which are in alveoli or ſockets; but the others, being the moſt hard and ſolid, are without them. This threatening appearance is heightened by whiſkers, like thoſe of cats, or rather tygers. Their eyes are ſmall; and their ears, from the root to the extremity, not above ſix or eight lines in length, and of a proportional breadth. Their noſtrils are alſo very ſmall, and the only parts deſtitute of hair, theſe having a glandulous membrane, like the ſame part in dogs. This creature has two fins, which ſerve them both for ſwimming in the water, and for walking on the ground. The tail, which is every where equally cartilaginous, is of a length proportional to the body, but much thicker than thoſe of the generality of fiſh. They carry it horizontally; ſo that by inverting the laſt vertebræ, where the articulations are more flexible than in other parts, they form of it a kind of hind feet; and at the ſame time the fins helping them before, they walk without trailing the body along the ground. A remarkable particular in the formation of this amphibious creature is, that in both the fins and the extremity of the tail there are protuberances reſembling fingers; they are ſmall bones or cartilages incloſed within thoſe callous membranes which cover the fins and tail. Theſe fingers they can expand ſo as to cover the whole breadth of the fin; and thus form, as it were, the ſole to tread upon. At the end of each is a nail, of about two lines in length, and half a line in breadth.

Among the ſeveral articulations in the fins, are two very remarkable, one at the junction of the omoplata, where it forms a kind of ſhoulder, and the other at the extremity of the fin, where the fingers are connected. The ſame economy is obſerved in the tail, and thus they are adapted to an amphibious life: accordingly, though not with a celerity equal to that of quadrupeds, they climb up ſteep rocks of a height one would think impracticable to ſuch creatures, as they are abſolutely ſo to men; and come down again with the ſame eaſe, notwithſtanding their great bulk and fatneſs, which is ſuch in the larger ſpecies, that their diameter at the fins is little ſhort of a yard and a half.

Their organs of generation are placed at the lower extremity of the belly, and at the time of coition the male and female place themſelves on their tails, with their faces inward,

inward, embracing each other with their fins, which, on this occaſion, ſupply the place of arms. The female brings forth and ſuckles her young in the ſame manner as terreſtrial creatures, but has never above one or two at a time.

The largeſt ſpecies are by ſome called ſea-lions, but in theſe ſeas their general name is Lobos de Aceyte, or oil-wolves: becauſe when they move, they appear like a ſkin full of oil, from the motion of the vaſt quantity of fat, or blubber, of which their enormous body conſiſts. And though oil is made from all the ſpecies, none yield it in proportion to theſe; indeed they conſiſt of little elſe. I was once entertained with a particular circumſtance relating to this ſpecies. A ſailor having wounded one, it immediately plunged itſelf into the ſea; but had hardly tinged the water with its blood, when it was ſurrounded in an inſtant by ſhoals of the other two ſpecies, who attacked and devoured it in a few minutes, which was not the caſe with the other ſpecies; which, when wounded, though they alſo plunged into the water, yet the ſight of their blood had no effect on others; nor were they ever attacked. They are miſchievous, and their bite the more dangerous, as they never let go their hold; but they are heavy, torpid, and ſluggiſh; nor can they turn their heads without great difficulty. They were ſo far from avoiding our men, that they were obliged to ſtrike them with ſticks to make them move out of their way. The cry of their young very nearly reſembles the bleating of a ſheep; but when they all join, as it were in concert, the noiſe is inſupportable. They are the chief food of the dogs, who, after killing them, take off their ſkin with great dexterity. In their attack, they aim always at the throat; and when they have deſtroyed the creature, they tear the ſkin all round the neck; then ſeizing it by the head, and putting their fore-feet between the ſkin and the fleſh, they ſtrip it entirely off, and then devour the carcaſe.

The largeſt kind, as we have already obſerved, are, by the ſailors, called ſea-lions, the heir of the neck diſtinguiſhing them from the others, and has ſome reſemblance to a mane, though not much longer than that on the other parts of the animal; but as their whole body has a greater ſimilarity to that of the wolf, and being entirely like the other ſpecies, the name of ſea-wolf ſeems to be more proper than that given them by the ſeamen.

All theſe kinds of ſea-wolves have ſo tender a ſenſation at the extremity of their noſtrils, that though they will bear many wounds in other parts of the body, the ſlighteſt ſtroke on this diſpatches them; and that they are ſenſible of it, is evident from their making it their chief care to defend that part from any violence.

A great ſingularity is alſo obſervable in the dogs of this iſland, namely, that they never bark. We caught ſome of them, and brought them on board; but they never made any noiſe till joined with ſome tame dogs, and then indeed they began to imitate them, but in a ſtrange manner, as if learning a thing not natural to them.

The iſlands of Juan Fernandes abound greatly in fiſh, among which are two ſpecies, not obſerved in any other part of this vaſt ſea. One is the cod, which, though not abſolutely like that of Newfoundland, the difference is very minute, either with regard to colour, form, taſte, and even the ſmall ſcales obſervable on that fiſh. They are of different ſizes, but the largeſt three or four feet in length.

The other ſpecies is a fiſh reſembling the tollo in ſhape, but much more palatable. From the fore part of each of the two fins on his back, grows a kind of triangular ſpur, a little bent, but round near the back, and terminating in a point. It has a fine gloſs, and the hardneſs of a bone. At the root of it is a ſoft ſpungy ſubſtance. This ſpur, or bone, for it reſembles both, is ſuch a preſent remedy for the tooth-ache, that,

that, the point of it being applied to the part affected, it entirely removes the pain in half an hour. The firſt account I had of this ſingular virtue was from a Frenchman, who was my pilot; but as reaſon would not permit me to give credit, without experience, to a circumſtance ſeemingly ſo void of probability, the aſſeverations of the man increaſed my deſire of putting it to the proof, which I did ſeveral times, and always with ſucceſs. I did not fail to communicate a diſcovery of ſuch great benefit; and accordingly ſeveral of my acquaintance, who laboured under that excruciating pain, made trial of it, and found from it the ſame happy effects; with this particular circumſtance, that ſoon after the application of the bone to the part affected, it became inſenſible of pain, a drowſineſs ſucceeded, and they awaked free from the torture. I obſerved that the ſpongy ſubſtance at the root, during the operation, became gradually inflated, and ſofter than in its natural ſtate, which could not be effected ſolely by the moiſture of the mouth, the part put into it being compact, hard, and ſmooth as ivory. I am therefore inclined to think, that it has an attractive virtue, which extracts the morbific humour, and collects it in the root. The common length of theſe anodyne ſpurs, or bones, is two inches and a half, of which one moiety, together with the root, is within the body of the fiſh. Each face of the triangle is about four lines in breadth. They are taken in the ſame plenty as the others.

The abundance of fiſh about theſe iſlands is ſuch, that two hours fiſhing in the morning, and as many in the evening, with only ſix or eight nets, procured not only a ſufficiency for all the ſhip's company, but a conſiderable quantity remained for ſalting. The chief kinds are cod, berrugates, the ſpur-fiſh, ſole, turbot, jureles, and lobſters; beſides an infinite number of ſmall fiſh, which covered the water; a circumſtance the more ſurpriſing, as there are ſuch multitudes of ſea-wolves all along the coaſt, which live on nothing elſe. For though there is very little fiſhing near theſe iſlands, yet doubtleſs the conſtant ravages of ſuch enormous creatures may be thought at leaſt equal to the capture of a large fiſhery.

Theſe ſeveral ſpecies are all ſo delicate and palatable, that the epicure would be at a loſs which to prefer. The lobſters are often half a yard in length, and are taken even with greater eaſe than the others. They are of an exquiſite taſte, though the meat is ſomething hard. The berrugate is a large ſcaly fiſh.

We continued at anchor near this iſland till the 22d of January; during which time, we reconnoitred every part of it, and particularly viſited the place where the Engliſh had erected their tents, in order to diſcover any private ſignal they might have left for the information of any other ſhips that ſhould afterwards touch at this iſland. The preſident of Chili had, with the ſame view, ſent a ſhip hither ſome months before our arrival; but all they met with was two bottles, in each of which was a writing in cypher; and all we diſcovered were the piquets and poles of the tents; with their ſmall wooden bridges for croſſing the breaches, and other things of that kind. Both our frigates having taken in water and wood, we ſailed at three in the afternoon for the iſland of Santa Maria, which we made on the 5th of February, and after carefully ſurveying it on all ſides, continued our courſe till half an hour after ſeven of the ſame day, when we came to an anchor at Puerto Tome, on the eaſt ſide of the bay of Conception.

At our departure from the iſland of Fernandes, we ſteered firſt eaſt one quarter ſoutherly, and the winds continuing between the ſouth and ſouth-eaſt, we tacked on the 23d, and ſteered between the weſt-ſouth-weſt and ſouth-ſouth-weſt, but on the 28th, being in the latitude of 35° 33′ 30″, 33′ 30″ ſouth latitude, and a degree weſt of the meridian De

Aſuera

Afuera de Juan Fernandes, we obſerved the winds to ſhift from ſouth to ſouth-weſt. Accordingly we altered our courſe, ſteered eaſt and eaſt-ſouth-eaſt till the 31ſt day, when we found ourſelves in the latitude of 36° 23′ and about fifteen or twenty leagues north-weſt of the bay of Conception. But the weather, which had been the ſame alſo the day preceding, was ſo hazy, that we could not ſee the other frigate. Sometimes indeed we diſcerned the colours, but without having any ſight either of the hull or maſt*. This was however ſufficient to aſſure us that they were within half a cannon ſhot of each other. This, and our being ſomething to leeward of the bay, obliged us to ſtand to ſome diſtance off to ſea; and thus we kept along the coaſt without venturing to approach it till the 5th, when at half an hour after nine in the morning, the weather cleared up, and gave us ſight of Cape Carnero, bearing ſouth-ſouth-eaſt ten or twelve leagues: and the middle part of Santa Maria, north-eaſt one quarter northerly. We crouded all ſail towards the latter, and at eleven the frigates lay-to, Cape Rumena bearing ſouth one quarter eaſterly diſtance four leagues, and Cape Lavapies eaſt one quarter north-eaſt, diſtance two leagues. The ſouth point of the iſland of Santa Maria bore north-eaſt four leagues diſtant, the north point of the ſame iſland north-north-eaſt and a large rock without, north one quarter eaſterly. Here we ſent our long-boat with orders to go betwixt the iſlands and the continent, and take a ſurvey of it, and then join us in Conception bay. Accordingly the frigates got under ſail at twelve at noon, with a freſh gale at ſouth-ſouth-eaſt and ſoon after came to an anchor in the ſaid bay.

Don George Juan, from his reckoning, concluded that the iſland of Santa Maria, which lies in 37° 3′ ſouth latitude, was 7° 10′ eaſt of the iſland De Afuera de Juan Fernandes. Whereas I differed 0° 14′ from him, making it only 6° 56′.

To the north-weſt of this iſland, at the diſtance of a league and a half, is a lofty ſteep rock with ſeveral ſmaller at its foot; and one league and a half farther to ſeaward, alſo on the north-weſt ſide of the iſland, is a ſhoal, which, though we at this time ſaw no breakers on it, we took care to keep at a proper diſtance. And in my ſecond voyage, in the year 1744, I had a clear view of it, for I not only ſaw the breakers, it being then low-water and the ſea running high, but alſo a reef of rocks at the water's edge. The country pilots have aſſured me, that by ſteering in the middle between this ſhallow and the rock, there is a very ſafe channel, having in moſt parts fifty or ſixty fathom water.

In my ſecond voyage above-mentioned, on board a French frigate called La Delivrance, in the latitude of 36° 54′ and 2° 24′ weſt of the iſland of Santa Maria, about half an hour after making our obſervations, we unexpectedly found ourſelves in a tract of thick water of a yellowiſh colour; which, naturally occaſioning a great ſurpriſe, we ſtarted from the table, being then at dinner, and haſtened up to the quarter-deck. It was now too late to put the ſhip about; ſhe being in the very centre of it. This ſhoal, as it appeared to us, ſtretched near two leagues from north to ſouth, and was about ſix or eight hundred toiſes over from eaſt to weſt. The colour of the water was of ſo deep a yellow, that, after Providence had happily carried us through it, we could eaſily diſtinguiſh it at a conſiderable diſtance. I muſt own, our conſternation was ſuch, from our concluding we were on a ſhoal, as there was all the appearance of it, that we had no thoughts of bringing the frigate-to, till we had got our ſounding line in order. In ſome parts the water was of a deeper yellow, as being more

* This I ſuppoſe is a miſtake, and ought to be read thus: ſometimes we ſaw the looming of the ſails, but could not perceive the hull. A.

ſhallow.

ſhallow. In others we could perceive rays of ſea or green water, intermixed with that of the ſhoal. No chart has taken any notice of it; nor was it indeed before known to any of the pilots of theſe ſeas, as they themſelves acknowledged, notwithſtanding their repeated voyages. We ſhould therefore have been guilty of a great indifference with regard to the public ſafety, had we neglected to have given this account of it.

The general winds, between the iſlands of Juan Fernandes and this place, are the ſame as thoſe which reign in the gulph; and which have been already deſcribed; but the currents are different, ſetting north-weſt; and this becomes the more perceivable in proportion as you approach nearer to the coaſt. From the iſland De Tierra de Juan Fernandes eaſtward, the water is greeniſh, and weſtward blueiſh. This I have myſelf obſerved ſeveral times, even when not in ſight of the iſland; and alſo that the colour of the water changes with the meridian. Between the iſlands and the continent I have frequently ſeen the water ſpouted up by the whales; an appearance which has been often taken for breakers.

Within twenty or thirty leagues of the coaſt, we met with large flights of curlews; but this diſtance is the utmoſt limit of their excurſions. Theſe birds are of a middling bigneſs, moſtly white except the breaſt and upper part of the wings, which are of a roſe colour. Their heads are proportionate to their bodies, but their bill very long, ſlender and crooked; and as ſmall at the root as at the point. They fly in vaſt troops, and conſequently are eaſily known.

The coaſts in general of this ſea, from Guayaquil to the ſouthward, are very difficult to be ſeen, except in ſummer time, being the whole winter covered with ſuch thick fogs, that no object can be diſcerned at half a league diſtance. And this dangerous hazineſs extends often to the diſtance of fifteen or twenty leagues off to ſea. But during the night, and till about ten or eleven in the morning, the fog is only on the land. At that time it moves farther to ſeaward, with a prodigious denſity, reſembling a wall, totally concealing every object on the other ſide of it: and the cautious mariner forbears to make his way through it, being uncertain whether he ſhall meet with clearer weather, as he approaches nearer to the coaſt.

Theſe winter fogs on the coaſt of Chili, ſeem to be occaſioned by the north winds; they being obſerved always to thicken when thoſe winds blow, and though the atmoſphere be clear when the wind ſhifts to that quarter, it is inſtantaneouſly filled with thoſe vapours; which continue without any diminution, till the ſouth winds ſet in, and have blown freſh for two or three days ſucceſſively. But as in winter they are uſually interrupted by the winds at north-weſt and ſouth-weſt, theſe vapours, ſo inconvenient to commerce, are ſeldom totally diſperſed; and it is a common phraſe among the mariners of theſe parts, that the north is a filthy wind on account of the diſagreeable vapours, with which it is loaded, and the ſouth is a cleanly wind, ſweeping theſe nuiſances from the coaſt and country, and purifying the air. I call theſe winter fogs, as they are equally common all along the coaſt from the parallel of twenty to the equinox, where no north winds are known. And as I have already related of Lima, all the inhabitants of the coaſt live, during the winter, in a perpetual fog.

I ſhall

I ſhall conclude this chapter, with a table of the variations of the needle obſerved in my ſecond voyage, in the frigate La Delivrance, from Callao to Conception Bay.

South Latitude.		Longitude from Callao.		Variations, and their Kinds.	
Degrees.	Minutes.	Degrees.	Minutes.	Degrees.	Minutes.
22	13½	351	03	7	58 E
25	37½	349	51	9	22
28	27	348	46	9	42
32	10	350	45½	9	58
32	52½	351	14½	9	06
33	51½	352	32	10	00
35	06	354	39½	11	10
36	57	000	47½	11	15

Don George Juan, who ſailed from Callao, with the Delivrance, as commander of the Lys, another French frigate, made the following obſervations:—

South Latitude.		Longitude from Callao.		Variations, and their Kinds.	
Degrees.	Minutes.	Degrees.	Minutes.	Degrees.	Minutes.
12	06	000	00	8	52 E
12	50	359	00	7	48
23	00	350	00	6	00
25	30	349	15	5	00
27	00	348	30	5	15
30	45	349	00	6	00
33	30	352	20	7	10
Without the Iſland of Juan Fernandes.					
33	50	356	00	8	30
33	40	000	00	10	30
33	45	002	00	10	45
On the Coaſt of Valparaiſo.					
33	20	005	00	12	30

The ſenſible difference between theſe variations aroſe from the difference of the needles, by which they were obſerved; and the reaſons for that difference have been conſidered in another place.

The difference of the meridians between Callao and Conception, appears from the ſeries of obſervations made by us at Lima, and thoſe by Father Feuillée, at the ſame place, to be 3° 58′, which is the eaſtern diſtance of Conception from Callao, yet in the maps of this country, it is placed eight or nine degrees to the eaſtward, a miſtake

proceeding from a want of attention in the pilots in obſerving the direction of the currents; and as theſe carry the ſhip towards the ſouth-weſt, the pilots, when in the offing, begin to compute their diſtance from the coaſt. But this being in reality much greater than that given by the rhumb, they are afterwards under a neceſſity of ſteering towards the eaſt, and thence their reckoning makes the port farther to the eaſtward than it really is; and the currents running ſometimes with a greater velocity than at others, pilots often differ in placing the meridian of Conception, ſo that very few at firſt make the Cape, though aſſiſted by that chart, which they conſider as the beſt. For all theſe draughts are laid down from the falſe concluſions of erroneous journals, no allowance having been made for the ſetting of the currents. The difference of latitude proves, beyond contradiction, the reality of the currents, and the degree of their velocity, as I have already noticed.

On the 26th of January, the Eſperanza, a Spaniſh frigate, commanded by Don Pedro de Mendinueta, came to an anchor in the harbour of Talcaguano, after her voyage from Monte-Video in the river of Buenos Ayres, round Cape Horn, which ſhe had performed in ſixty-ſix days. On our arrival at Puerto Tome, an officer came on board the Belin, the very ſame night we came to an anchor; and the day following, being the ſixth of February, our two frigates joined the Eſperanza at Talcaguano, and formed a little ſquadron under the command of Don Pedro de Mendinueta, according to orders from the Viceroy, who had received an account that the Eſperanza lay ready at Monte-Video, to proceed on her voyage that ſummer into the South Sea, and that Commodore Don Joſeph Pizarro, with other officers, were travelling over-land to Santiago de Chili; which he had reached at the time of our arrival.

CHAP. V. — *Deſcription of the City of Conception, in the Kingdom of Chili; with an Account of its Commerce, and the Fertility of the Country.*

CONCEPTION, otherwiſe called Penco, was firſt founded by Captain Pedro de Valdivia, in the year 1550. But the powerful revolts of the Indians of Arauco and Tucapel, obliged its inhabitants to remove to Santiago. They cannot, however, be charged, with having quitted their ſettlement, till they had been defeated ſeveral times by the Indians, in one of which they loſt the above-mentioned Pedro de Valdivia, who, as governor of that kingdom, was commander-in-chief of the forces employed in the conqueſt of it. The ſame unhappy fate alſo attended Franciſco de Villagra, who, as Valdivia's lieutenant-general, had ſucceeded in the command. Theſe misfortunes, and the ſuperiority of the allied Indians, obliged the Spaniards to abandon Conception. The inhabitants, however, being deſirous of poſſeſſing again their plantations in the neighbourhood of that city, and of which they uſed to make ſuch large profits, petitioned the audience of Lima for leave to return to their original city; but had ſoon ſufficient cauſe to repent of not having exerted their induſtry in improving the place whither they retired; the Indians, on the firſt notice that the Spaniards were returned to the city, forming a powerful alliance under a daring leader, called Lautaro, took by ſtorm a ſmall fort, which was the whole defence of the city, and put all to the ſword, except a ſmall number who had fortunately eſcaped to Santiago. Some time after, Don Gracia de Mendoza, ſon to the Viceroy de Mendoza, Marquis of Canete, arriving as governor of Chili, with a body of forces ſufficient for making head againſt the Indians, reſtored the inhabitants of Conception to their former poſſeſſions, with the greateſt apparent ſecurity. But the year 1603 gave birth to a new and more general confederacy,

confederacy, by which means Conception, La Imperia, and Baldivia, with ſix ſmaller places, were deſtroyed; being the greateſt part of the places in this kingdom. Conception, however, received freſh ſuccours, the city was again repaired, and has continued ever ſince.

Its latitude, according to an obſervation we made in the year 1744, at Talcaguana, which lies exactly eaſt and weſt with the city, is 36° 43′ 15″ ſouth, and its longitude from the meridian of Teneriff, according to Father Feuillée, 303° 18′ 30″. The city is built on the ſouth-weſt ſhore of a beautiful bay, on an uneven ſandy ground, and on a ſmall declivity, having a little river running through it. The city, in its extent, is ſcarce equal to one of the fourth claſs. The deſtruction it ſuffered in the dreadful earthquake of 1730, occaſioned all the houſes to be built low, though it had before been ſubject to theſe ſudden convulſions of nature. This was, however, the laſt of thoſe remarkable for their melancholy conſequences, which extended to Santiago, the capital of the kingdom, which was involved in the ſame ruin. On the 8th of July, at one in the morning, the firſt emotions were felt, and the concuſſions increaſing, the ſea retreated to a conſiderable diſtance; but in a ſmall time returned ſo impetuouſly, and with ſuch a ſwell, that it overflowed the whole city, and the neighbouring countries. In this ſudden calamity, the inhabitants had no other aſylum than the neighbouring eminences. This inundation was ſoon ſucceeded by three or four ſhocks; and, at about four in the morning, a little before day-break, the concuſſions returned with the moſt tremendous violence, demoliſhing the few buildings which had withſtood the firſt ſhocks, and the rapid motion of the ſea.

The houſes are all either of topias, or mud walls, or adoves, unburnt bricks; but covered with tiles. The churches are ſmall and mean; the ſame may be ſaid of the Franciſcan, Auguſtine, and Dominican convents, as well as thoſe belonging to the fathers of Mercy: but the college of Jeſuits is not wholly deſtitute of elegance, being well built, and of a tolerable architecture.

The political government of this city conſiſts of a corregidor, nominated by the King, and who is at the head of the ordinary alcaldes and the regidores. During the vacancy of this poſt, the duty is performed by the preſident of Chili, who is governor, and captain-general of the whole kingdom, and preſident of the audience of Santiago, on which, as its capital, Conception is dependent. The court of audience was originally eſtabliſhed in the latter, and continued there from the year 1567 to 1574; but the danger and diſturbances, occaſioned by the frequent revolts of the Indians, cauſed it for a while to be ſuppreſſed, and afterwards to be removed to the city of Santiago. The preſident is, however, obliged to reſide ſix months of the year at Conception, that he may attend carefully to the military concerns of the frontiers, ſee that the forts be in a good condition, and well provided with every thing, in order to keep the Indians of Arauco in awe, and that the military forces are in good order, and well diſciplined, and always in readineſs to repel any attempts of the Indians, provided they ſhould ever abandon their dread of the Spaniſh troops. During the other ſix months, when the governor reſides at Santiago, he acts in a very different character; hearing complaints, redreſſing grievances, and adminiſtering juſtice, that this tribunal may receive the greater dignity from his preſence. Here is alſo a chamber of finances, at the head of which is an accountant and treaſurer. Beſides which, Conception has likewiſe all the other courts and offices uſual in the cities of South America.

As all the inhabitants of the towns, villages, and country, within the juriſdiction of Conception, form different bodies of militia, ſome of which are in pay, and all muſt be ready on any ſudden alarm, there is, beſides the corregidor, a Maeſtra de Campo,

who commands in all the militiary affairs without the city; but we ſhall have occaſion to give a farther account of his duty in the ſequel.

This city at firſt belonged to the dioceſe of Imperial; but that being ruined by the perpetual incurſions of the Indians, the epiſcopal ſee was removed to Conception, and the chapter changed. It is now a ſuffragan of Lima, and has a chapter conſiſting of a biſhop, dean, archdeacon, and two prebendaries.

The juriſdiction of Conception extends from the river Maule on the coaſt north of the city to Cape Lavapies. It has few villages; but the whole country is full of ſeats, farms, and cottages.

The inhabitants conſiſt of Spaniards and Meſtizos, who in colour are hardly diſtinguiſhable from the former; both being very fair, and ſome have even freſh complexions. The goodneſs of the climate, together with the fertility of the country, have drawn hither many Spaniſh families, both Creoles and Europeans, who live together in that harmony and friendſhip, which ſhould be an example to the other parts of theſe provinces; where the comforts of ſociety are greatly leſſened by the feuds ariſing from a mean pride and jealouſy. The men in general are well-ſhaped and robuſt, and the women handſome. Their cuſtoms and dreſs are a kind of compound of thoſe of Lima and Quito, but more nearly reſemble the latter, except that the men uſe, inſtead of a cloak, a poncho, which is made in the form of a quilt, about two yards and a half or three in length, and two in breadth, having an opening in the middle juſt ſufficient to put their head through, the reſt hanging down on all ſides. This is their dreſs in all weathers, whether walking or riding. The peaſants, whom they call Guaſos, never pull it off but when they go to reſt, tucking it up in ſuch a manner, that both their arms and whole body are at full liberty either for labour or diverſion. This is an univerſal garb among all ranks when they ride on horſeback, an exerciſe very common here; and the women are particularly famous for their ſkill in horſemanſhip.

This dreſs, though ſo plain and uniform in itſelf, ſerves to diſtinguiſh the rank and quality of the wearer; as its price is proportional to the work on it. Some wear it as a covering, ſome for decency, and others for ſhew. Accordingly if thoſe of the common people coſt only four or five dollars, others have ſtood the owners in an hundred and fifty, or two hundred. This difference ariſes from the fineneſs of the ſtuff, or from the laces and embroidery with which they are decorated. They are of a double woollen ſtuff, manufactured by the Indians, and generally of a blue colour, embroidered with red or white, ſometimes indeed the ground is white, embroidered with blue, red, and other colours.

The peaſants are ſurpriſingly dexterous in managing the nooſe and lance; and it is very ſeldom, that, though on full ſpeed, they miſs their aim with the former. Accordingly theſe are their chief arms, and they will halter a wild bull with the ſame agility as any other creature; nor could a man, however cautious, avoid being taken in their nooſe. I ſhall relate an inſtance of their addreſs, with regard to an Engliſhman whom we knew at Lima. He was in the long-boat of a privateer, then lying in Conception bay, intending to land at Talcaguano, with a view of plundering the neighbouring villages; but a body of the country militia made to the ſhore in order to oppoſe them. Upon this, the Engliſh fired upon them with their muſquetry, imagining that would be ſufficient to put them to flight, and thus the place be open for them to land. They had no ſooner diſcharged their pieces, than one of the peaſants, though the boat was at a conſiderable diſtance, threw his nooſe, and notwithſtanding all in the boat threw themſelves on their faces, he nooſed the above-mentioned perſon, pulling him out of

the boat with the greateſt rapidity; whilſt the others, inſtead of endeavouring to ſave him, in their fright thought of nothing but how to get out of danger as ſoon as poſſible. It was the Engliſhman's good fortune not to be ſtrangled or killed by the bruiſes he received, the ſlip-knot having paſſed from one ſhoulder under the oppoſite arm, ſo that he recovered in a few days.

As it is very ſeldom that they miſs, and are obliged, on haltering a creature, to draw the knot, at the ſame time that they throw the nooſe, they clap ſpurs to their horſe, and put him on his full ſpeed; that the creature is ſo far from having time to diſengage itſelf, that it is no ſooner caught than diſabled. This is alſo one of the weapons, if I may give it that name, uſed in their private quarrels, defending themſelves with a lance of a middling length. And their addreſs on theſe occaſions is ſo very remarkable, that very often, after a long diſpute, in which both parties are heartily tired, they part, with no other hurt than a few bruiſes. This is alſo the method they take to ſatisfy their revenge, endeavouring to halter the object of their hatred, either as he runs from them, or is not apprized of their intention. In this caſe the only reſource in an open country, on ſeeing him with his nooſe in his hand, is, to throw oneſelf on the ground, keeping the legs and arms as cloſe to the ſurface as poſſible, that the rope may have no room to get under any part. The perſon may alſo ſave himſelf by ſtanding cloſe to a tree, and, if in the ſtreet, by placing himſelf againſt the wall. A ſmall diſtance, that is, under ten or fifteen paces, partly renders their dexterity ineffectual; but there is very great danger of being entangled when the diſtance is thirty or forty. The nooſes, or halters, are thongs of a cow's hide, cut round the ſkin, and of a proper breadth. Theſe thongs they twiſt, and work with fat, till they are of a proper degree of ſuppleneſs; but ſo ſtrong, that though when twiſted they are not larger than the little finger, yet they hold the wildeſt bull when its efforts to eſcape would break a rope of hemp of much larger dimenſions.

The climate of this city is not eſſentially different from that of the greateſt part of Europe. Winter is indeed ſomething colder than in the ſouthern provinces of Spain, but milder than thoſe of the northern; and the ſummer heats proportionably. In winter the inhabitants ſeem to be little incommoded by the north winds, and in ſummer the heats are moderated by the cooling breezes from the ſouth. The heat is however greater in the city than in the adjacent country, occaſioned chiefly by the different diſpoſition of the ground, being interſected by various rivers, ſome of which are very large, as the Arauco and the Biobio. The latter of which, at a league above its mouth, is very near four leagues in breadth. It may, however, in ſummer be forded, but not without danger; in the winter it is paſſed in balzas. At the ſouthern banks of the river, the territories of the wild Indians begin, and near the ſame ſhore towards that part are the chain of frontier forts, of which a farther account will be given in the ſequel. The country of this juriſdiction conſiſts principally of extenſive plains, the Cordillera being at a conſiderable diſtance to the eaſtward, and the whole ſpace between it and the ſea-coaſt, one entire and uniform plain, interrupted only by a few eminences, which are an ornament to the country, and render the perſpective of it the more agreeable.

The great affinity between this climate and that of Spain is evident from its products, though there is a remarkable difference with regard to their goodneſs and plenty, in both which this country has greatly the advantage. The trees and plants of all kinds have their regular ſeaſons, embelliſhing the fields with their verdure, entertaining the ſight with their various flowers and bloſſoms, and gratifying the palate with their delicious fruits. It is needleſs to mention that the times of the ſeaſon muſt be oppoſite, conſequently

conſequently the winter in Spain is their ſummer, and the autumn of the former, the ſpring of the latter. In ſaying that this country produces the ſame corn and fruits as Spain, I do not mean thoſe of the moſt ſouthern parts; for neither ſugar-canes, oranges, nor lemons thrive here. Nor is it well adapted to olive-yards, though ſome olives are produced here. But the fruits cultivated in the centre of Spain are the ſame with thoſe produced here in a moſt aſtoniſhing plenty, wheat and other grain generally producing an hundred fold. I ſhall here relate an inſtance I myſelf ſaw and examined at Talcaguano, in a garden near the ſea-ſide, at a place called the Morro, very little more than a quarter of a league from the harbour. Among ſeveral ſtalks of wheat that had grown there without culture, I ſaw one whoſe ſtem was not more than a foot from the ground, but from its knots there afterwards ſprung ſo many ſtalks, as produced thirty-four ears *, the largeſt of which were near three inches in length, and the leaſt not leſs than two. The maſter of the houſe obſerving that I viewed this production of nature with aſtoniſhment, told me that it was nothing extraordinary, for though the grain in the ground commonly ſown, did not often attain ſuch a luxuriancy, it was common for each ſtalk to produce five or ſix ears. This information raiſed my curioſity; and I met with ſo many inſtances afterwards, that my ſurpriſe at ſeeing the ſtalk juſt mentioned was greatly abated; as from the moiſture, advantageous expoſure, and richneſs of the ſoil, a much greater produce might naturally be expected than in the ground conſtantly ſown.

The great plenty of wheat here is ſufficiently indicated by its price; a meaſure weighing ſix arobas and ſix pounds, being uſually ſold for eight or ten rials. Yet for want of a market, though at ſo low a price, no more is ſown than is neceſſary for home conſumption; and thence a great part of the country lies fallow.

Here are vines of ſeveral kinds, and which vie with the wheat in exuberance. They are alſo, both with regard to the richneſs and flavour of their grapes, eſteemed beyond any produced in Peru. Moſt of them are red. A ſort of Muſcadel is alſo made here, whoſe flavour far exceeds any of the kind made in Spain. The grapes grow moſtly in eſpaliers, and not on detached vines. In this reſpect alſo, as in the wheat, large tracts of ground are totally neglected. For though its produce is ſo conſiderable, the buyers are ſo few, that the vineyards do not anſwer even the expence of cultivation.

The chief uſe made of theſe rich lands by the owners is, the fattening of oxen, goats and ſheep. And this is the principal employment of greateſt part of the inhabitants of the country of all ranks, and univerſally of the lower claſs. As ſoon as the horned cattle are fattened in theſe luxuriant paſtures, and the proper ſeaſon arrived, four or five hundred, and even more, according to the largeneſs of the farm, are ſlaughtered. They take out the fat, melt it into a kind of lard, there called Graſſa; and buccaneer or dry the fleſh in ſmoke; but the greateſt profit ariſes from the hide, the tallow, and the graſſa, a ſufficient proof of their prodigious fatneſs when killed. But an idea of the fertility of this country may be beſt formed from the value of a live beaſt, which, when fit to be killed, may be purchaſed for four dollars; a price vaſtly beneath that in any other part of India; and may be ſufficient to remove the unjuſt reproach of the poverty of this province. For were the induſtry of the people equal to the fertility of the ſoil, this kingdom would be the moſt opulent of any in America.

The manner of ſlaughtering the beaſts renders it a favourable diverſion to the perſons employed in performing it, and it muſt be owned that their dexterity is really ſurpriſing. The cattle intended to be killed are drove into an incloſure. At the gate are the Guaſos

* This ſpecies of wheat is called *Triticum ſpica multiplici*, and is cultivated in Italy and Sicily.

on horſeback with their ſpears two or three toiſes in length, and at one end a very ſharp piece of ſteel in the form of a half moon, the points of which are about a foot diſtant from each other. Every thing being ready, the gate of the incloſure is opened, and a beaſt turned out, which naturally betakes itſelf to flight, but is immediately purſued by a guaſo, who, without checking his horſe, hamſtrings it in one leg, and then immediately in the other. He then alights, and having diſpatched his capture, ſkins it, takes out the tallow, the fat for the graſſa, and cuts up the fleſh for ſalting and drying. This done he wraps up the tallow in the hide, and loading it on his horſe, carries it to the farm; returning again for the fleſh. After this he ſets out on another expedition. Sometimes they turn out at once as many beaſts as there are guaſos ready to kill them. And this is the daily exerciſe till all the cattle appointed for that year's ſlaughter are diſpatched. An European is ſurpriſed not only at their dexterity in hamſtringing the beaſt, when both are on full ſpeed, but alſo to ſee one man alone go through the whole work in ſuch a regular method and great diſpatch. If the beaſt be ſwifter than his horſe, the guaſo has recourſe to his nooſe, and halters him by throwing it either about his neck, or round one or two of his legs, according as opportunity offers, and by that means ſecures him. Then if a tree be near at hand, he gives the end of the thong two or three turns round the trunk, and the whole difficulty of killing the beaſt is over.

The tallow is wrapt up in the hides, and in this manner carried to the city for ſale; the graſſa is melted into bags of ſheep-ſkins; the fleſh, after being cut into thin ſlices, is ſalted, and this is what they call Taſſagear; afterwards it is buccaneered or dried in the ſmoke*, and ſold. The hides they tan, and make from them a moſt excellent leather, eſpecially for the ſoles of ſhoes†. Goats alſo, as we have already obſerved, are fattened and turn to good account. Their tallow nearly reſembles that of the ox, and the Cordovan leather made of their ſkins ſurpaſſes every thing of that kind made in any part of the whole kingdom of Peru.

All other proviſions and grain are in the ſame plenty, turkeys, geeſe, and all kinds of poultry are ſold at a remarkable low price, great numbers of them being bred all over the country, with little care and no expence. Wild fowls alſo are very common, among which are canelones, and others deſcribed among the birds found in the deſerts of Quito, though theſe are not ſo large, and more like the bandarrias as they are there called. Here are alſo wood-pigeons, turtle-doves, partridges, ſnipes, woodcocks, and royal cirapicos, &c. And with regard to theſe, the air may be ſaid to vie with the fertility of the earth.

Among the birds I muſt not omit one of a very ſingular kind, and found all over the country. The natives call theſe birds diſpertadores, awakeners, from their giving notice to others of the approach of any danger. On hearing the noiſe of the approach of any creature, whether man or beaſt, or ſeeing them within a ſmall diſtance, they [illegible] from the ground, and make a loud chattering not unlike that of a magpye; continuing the noiſe, and flying about in the air over the object which cauſed the alarm. This is underſtood by the birds thereabouts, who immediately riſe, and by that means eſcape the danger.

This bird is about the ſize of a middling fowl, its plumage black and white, has a thick neck, the head ſomething large, erect, and beautifully adorned with a tuft of feathers; its eyes are large, ſharp and lively; its bill well proportioned, ſtrong, and a little curved. On the fore part of their wings are two ſpurs, about an inch in length,

* They dry it in the ſun, by which it attains a ruſty colour, and appears as though it had been dried in ſmoke. A.

† They tan thin leather with the bark of the mangrove tree. A.

of

of a reddiſh tint towards the root, and their points reſembling thoſe of a cock, being very hard and ſharp. Theſe are the weapons they make uſe of againſt the other birds, particularly thoſe of prey, as hawks, and others of that kind, which probably abound the more in this country, from the great variety of prey it affords them.

Among the ſinging birds is the goldfinch, in every particular reſembling thoſe of Spain, except a ſmall variation in its plumage. There are beſides others proper to this country, and met with in all the cold climates, particularly the piches, which are ſomething larger than ſparrows. They are of a brown colour, ſpotted with black, except their breaſt, which is of a moſt beautiful red, and ſome feathers of the ſame colour in their wings, intermixed with others of a bright yellow. Amidſt all the fertility of this country, the only inſects are the niguas or piques; and though ſome ſnakes are found in the fields and woods, their bite is not dangerous. Neither are the country peaſants under any apprehenſion from ravenous beaſts; ſo that nature may be ſaid to pour her treaſures on this country, without blending them with the uſual inconveniences.

The fruits which moſtly abound in Chili, are of the ſame kind as thoſe known in Europe; its cherries in particular are large, and of a fine taſte. The ſtrawberries are of two kinds, one called frutillas, and are larger than thoſe of Quito, wanting little of being equal to a hen's egg in magnitude. The other, which in ſize, colour and taſte, perfectly reſemble thoſe of Spain, grow wild, on the ſide of the eminences with which the plains are interſperſed. And here alſo grow all kind of flowers, without any other culture than that of benign nature.

Among the remarkable herbs, of which many are medicinal, and others applied to divers uſes, is the panque, of great ſervice in tanning leather. It abounds every where, and grows to about four or five feet from the ground. The principal ſtem, which is of a ſoft ſubſtance, is betwixt four and five inches in diameter, and about two feet and a half in height, ſeparating there into ſeveral branches, bearing round, ferrated, rough, and thick leaves, and ſo large that their diameter, when full grown, is ſeldom leſs than a foot and a half, and ſometimes two feet. Before the plant is fit to be cut, when the leaves begin to turn red, the peaſants make an inciſion into the bark, and ſuck the juice, which is very cooling and aſtringent; but as ſoon as ever the leaf is obſerved to turn white, an indication of decay, they cut the plant down at the root, take off the branches, and divide the ſtalk into ſhort pieces, which being dried in the ſun make an excellent tan.

Beſides this rich variety of productions on the ſurface of the earth, the country alſo abounds with valuable mines and quarries; particularly of Lapis lazuli and loadſtone, copper equal to the beſt of Europe; beſides ſeveral of gold; but no advantage is derived from any; the inhabitants, contented with the plentiful enjoyment of all the neceſſaries of life, extend their wiſhes no farther, leaving to the curioſity and avarice of others, the laborious ſearch after what the earth contains in its bowels.

This kingdom of Chili ſeems alſo to have been the firſt country of thoſe famous horſes and mules mentioned in the firſt part. Indeed all theſe creatures found in America owe their origin to ſome imported from Spain. At preſent however, thoſe of Chili ſurpaſs not only thoſe of the other parts of America, but even thoſe of Spain, from whence they are derived. The horſes firſt brought over might poſſibly have been of the running kind, Spain ſtill abounding in that ſort. But it muſt be owned, that greater care has been taken here of preventing the breed from being mixed with others of a leſs generous ſpecies; and by this means they greatly exceed thoſe of Spain; for without any other incentive than their own inclination, before they will ſuffer any other to get before them, they will exert their utmoſt ſtrength; and at the ſame time their motion

motion is ſo eaſy, that the rider is not the leaſt fatigued. In beauty and gracefulneſs they are not inferior to the famous Andeluſian horſes, and at the ſame time full of ſpirit. Accordingly they are every where ſo highly valued, that a more acceptable preſent cannot be made to a perſon of the greateſt diſtinction, than one of theſe beaſts. Many purchaſe them for parade, and beſides their being common all over the kingdom, they have been ſent even to Quito. The great demand for them, and conſequently their high price, has induced the inhabitants of ſeveral countries to attempt the breeding of them; but none are equal to thoſe of Chili.

The commerce at Conception might be conſiderably increaſed, were the country, which is far from being the caſe, inhabited in any proportion to its fertility and extent; but for want of a ſufficient number of hands, their commerce is at a very low ebb, conſiſting almoſt entirely in proviſions, wine, &c. and this is ſo ſmall, that it is chiefly carried on by only a ſingle ſhip coming once a-year to Callao to load with them, together with a few others trading to Chiloe and Baldivia, and in their return touch here. Their exports are tallow, graſſa, cordovan, bend leather, excellent butter, wines, and dried fruits. The goods brought hither in exchange are the ſeveral ſorts of woollen ſtuffs from Quito, and others from Europe, iron, and mercury. Very few European goods are however imported; for the people here not being remarkable for their riches, uſe only home-made ſtuffs and bays, which, though extremely good, are in no great quantity. The commerce carried on between the inhabitants of Chili, and the Arauco Indians, ſhall be mentioned in its proper place.

CHAP. VI. — *Deſcription of Conception Bay, its Roads or Harbours, Fiſh, &c. and the ſingular Mines of Shells in its Neighbourhood.*

THE bay of Conception, beſides its excellent bottom, is of ſuch an extent, as not to be equalled by any on the whole coaſt. For from Tierra-Firma, north and ſouth, its length is nearly three leagues and a half, and its breadth from eaſt to weſt, almoſt three leagues, being the diſtance betwixt the harbour of Talcaguano, and the Cirillo Verde, or little green mountain, ſituated near the city; from whence its breadth is contracted by the iſland of Quiriquina, which, lying in the mouth of it, forms two entrances, of which that on the eaſt ſide is the ſafeſt, being two miles in breadth, and accordingly frequented by moſt ſhips. The weſt entrance is between the iſland and Talcaguano point, and is near half a league in breadth. In the principal entrance of this bay is thirty fathom water, which depth afterwards decreaſes to eleven and ten, till within about a mile of the ſhore, oppoſite to the entrance. The weſtern, though the many rocks and breakers in it make it appear very dangerous, has a channel with water ſufficient for the largeſt ſhip, the depth being at firſt thirty fathom, and never leſs than eleven; it is ſituated in the middle of the entrance, that is, at an equal diſtance between the rocks which project about a quarter of a league from Talcaguano point and Quiriquina.

Within the bay are three roads or harbours, where ſhips anchor; for though the bottom be every where clear, it is only in one of theſe three places ſhips can ride in ſafety, being no where elſe ſheltered from the wind. The firſt, called Puerto Tome, lies eaſt and weſt with the north point of Quiriquina, contiguous to the coaſt of Tierra Firma. The anchoring place is about half a league diſtant from the land, in about twelve fathom water. But this road is only uſed when ſhips come in during the night,

it being difficult to reach either of the other two before day light, as ſeveral tacks muſt be made for that purpoſe.

In this bay the principal port is that of Talcaguano. It is properly an elbow, and bears ſouth-ſouth-weſt from the ſouth point of Quiriquina. This is by far the moſt frequented, ſhips in general anchoring here, having not only better ground than any other part of the bay, but are in ſome meaſure ſheltered from the north winds. Whereas at Cirillo Verde, they lie expoſed, not only to theſe, but alſo to the ſouth winds, the land which ſhould intercept them being low. Beſides, the bottom is of a looſe mud, ſo that the anchors in a hard gale of wind generally come home; and conſequently the ſhips in great danger of being ſtranded on the coaſt. From theſe inconveniences it may be concluded, that the only ſhips which anchor here, are ſuch as happen to be in thoſe parts in the midſt of ſummer, and are in haſte to take in their loading, for which this road is moſt convenient, as being neareſt the city.

Two rivers empty themſelves into this bay, one of which, paſſing through the city of Conception, has thence the ſame name; the other is called St. Pedro. The firſt is the watering-place for ſhips anchoring at Cirillo Verde; whereas thoſe at Talcaguano ſupply themſelves with that neceſſary fluid from ſome ſtreams which flow from the adjacent eminences; they eaſily take on board a ſufficient quantity of wood, of which there is here plenty; as of all other neceſſaries.

Ships, before they enter the bay of Conception, endeavour to make the iſland of Santa Maria, and then coaſt along it, keeping at the ſame time a good look-out for a reef of rocks which ſtretches out almoſt three leagues from the north-weſt point; thence they continue their courſe, keeping at a little diſtance from the main, there being no rocks but what are above water. After weathering the real of rocks on the iſland of Santa Maria, they ſteer directly for Talcaguano point, at the diſtance of about half a league; from which ſeaward, is a rock called Quiebraollas, which muſt be the more carefully avoided as it is ſurrounded with ſhoals. There is, however, no danger, if the ſhip be not nearer than half a mile; indeed there is a ſufficient depth of water within a cable's length. After their being a-breaſt of this rock, they ſteer for the north point of Quiriquina, off which lie two rocks, but the fartheſt from the ſhore is only a quarter of a league, and may be ſafely approached within a ſtone's caſt. Both theſe rocks ſwarm with ſea-wolves, and as there is a ſufficient depth of water all round them, there is no other danger in ſtanding near them, than what may be ſeen. There is indeed a neceſſity for ſtanding near them, to avoid falling to leeward of the bay. After paſſing them, the courſe is continued as near as poſſible to the iſland of Quiriquina, taking care to avoid ſome other rocks lying along the ſhore.

As ſhips are generally obliged to make ſeveral tacks in order to get into Conception bay, care muſt be taken not to approach too near to the iſland of Quiriquina, either on the eaſt or ſouth ſides; for though the coaſt is bold on the north and north-weſt ſides, there is a ſhoal on the ſouth extending to a conſiderable diſtance from the ſhore. At a third part of the diſtance between the road at Talcaguano, and the point of the ſame name, is another ſhoal, running about half a league to the eaſtward, in the middle of it is a ledge of rocks, whoſe tops are dry at low water. To avoid this ſhoal, though the thick water ſufficiently indicates it, the beſt way is, at entering the mouth of the bay with a land wind, to ſteer directly for the middle of a ſpot of red earth on a mountain of a middling height, ſituated at the bottom of the bay, continuing this courſe till the ſhip is paſt the ſhoal; and then ſteer directly for the houſes at Talcaguano, till within about half a mile from the ſhore, which is the uſual anchoring place in five or

ſix fathom water; Cape Harradura being covered by the iſland of Quiriquina. The ſame care is alſo neceſſary to avoid another reef of rocks, lying between the Morro and the coaſt of Talcaguano; nor muſt the Morro ſide be approached too near, there being a ſand ſtretching all along from that reef of rocks to Cirillo Verde. The ſhips riding at Talcaguano in the manner thus preſcribed, are ſheltered from the north wind; but not entirely ſo from the ſea, which in thoſe winds runs very high, and pours in through both entrances. The goodneſs of the bottom, however, ſecures the ſhip. During the force of theſe winds there is no poſſibility of landing on account of the great ſea; but in fair weather, every place is convenient for going on ſhore.

The country round the bay, particularly that between Talcaguano and Conception, within four or five leagues from the ſhore, is noted for a very ſingular curioſity, namely, that at the depth of half or three quarters of a yard beneath the ſurface of the ground, is a ſtratum of ſhells of different kinds, two or three toiſes in thickneſs, and in ſome places even more, without any intermixture of earth, one large ſhell being joined together by ſmaller, and which alſo fill the cavities of the larger. From theſe ſhells all the lime uſed in building is made; and large pits are dug in the earth for taking out thoſe ſhells, and calcining them. Were theſe ſtrata of ſhells found only in low and level places, this phænomenon would be more eaſily accounted for by a ſuppoſition no ways improbable, namely, that theſe parts were formerly covered by the ſea, agreeably to an obſervation we made in our deſcription of Lima. But what renders it ſurpriſing is, that the like quarries of the ſame kind of ſhells are found on the tops of mountains in this country, fifty toiſes above the level of the ſea. I did not indeed perſonally examine the quarries on the higheſt of thoſe mountains, but was aſſured of their exiſtence by perſons who had lime-kilns there; but I ſaw them myſelf on the ſummits of others at the height of twenty toiſes above the ſurface of the ſea; and was the more pleaſed with the ſight, as it appeared to me a convincing proof of the univerſality of the deluge. I am not ignorant that ſome have attributed this to other cauſes; but an unanſwerable confutation of their ſubterfuge is, that the various ſorts of ſhells which compoſe theſe ſtrata both in the plains and mountains, are the very ſame with thoſe found in the bay and neighbouring places. Among theſe ſhells are three ſpecies very remarkable; the firſt is called Choros, already mentioned in our deſcription of Lima; the ſecond is called Pies de Burros, aſſes feet; and the third Bulgados: and theſe to me ſeem to preclude all manner of doubt that they were originally produced in that ſea, from whence they were carried by the waters, and depoſited in the places where they are now found.

I have examined theſe parts with the cloſeſt attention, and found no manner of veſtige of ſubterraneous fires. No calcinations are to be met with on the ſurface of the earth, nor among the ſhells; which, as I have already obſerved, are not intermixed with earth; nor are there ſtones, or any other heterogeneous ſubſtances found among them. Some of theſe ſhells are entire, others broken; as muſt naturally happen in ſuch a cloſe compreſſion of them, during ſo long an interval of time. This circumſtance, however trifling it may appear to ſome, may deſerve the conſideration of thoſe who have advanced the notion, that ſhells may be formed in the earth by ſubterraneous fires, co-operating with the nature of the ſoil.

The Pie de Burro has its name from the fiſh incloſed in it, reſembling, when taken out, the foot of an aſs. This fiſh is of a dark brown colour, firm and ſilaceous; it is an univalve, its mouth almoſt circular, and its diameter about three inches. The bottom of the ſhell is concave within, and convex without. The colour within is perfectly white, the ſurface very ſmooth, the outſide ſcabrous and full of tubercles. Its

thickneſs in every part is about four or five lines; and being large, compact, and heavy, is preferred to all others for making lime.

The bulgados, in the Canaries called bulgaos, are ſnails, not at all differing in their form from the common; but larger than thoſe of the ſame name found in gardens, being from two inches to two inches and a half in diameter. The ſhell is alſo very thick, rough on the outſide, and of a dark brown colour; and next to the preceding makes the beſt lime.

All theſe ſpecies of ſhell-fiſh are found at the bottom of the ſea in four, ſix, ten, and twelve fathom water. They are caught by drags; and what is very remarkable is, that no ſhells, either the ſame, or that have any reſemblance to them, are ſeen either on the ſhores continually waſhed by the ſea, or on thoſe tracks which have been overflowed by an extraordinary tide. They adhere to a ſea-plant, called Cochayuyo lake-herb, the Indians making no nominal diſtinctions between the inland lakes and the ſea, calling both cochas. This plant reſembles the bejuco; its diameter is about half an inch, and from its root to its extremity of an equal thickneſs. In length is from twenty to thirty toiſes, producing at every eighteen inches, or ſomething more, a leaf about a yard and a half or two yards in length; but the breadth, which is in every part the ſame, does not exceed two or three inches. It is remarkably ſmooth, which, together with a viſcid liquor, with which it is covered, gives it a very fine gloſs. The ſame may be ſaid of the ſtem, which is extremely flexible, and ſtrong. Its colour is of a pale green, but that of the leaves more vivid. This plant divides itſelf into ſeveral branches, equal in dimenſions to the main ſtem. Theſe branches ſucceſſively produce others of the ſame proportion; ſo that the produce of one ſingle root covers a prodigious ſpace. At the joints, where the branches ſpring, are found this kind of ſhell-fiſh, where they both receive their nouriſhment, and propagate their ſpecies. The extremities of theſe cochayuyos float on the ſurface, and in ſome lakes, where the water has remained a long time undiſturbed, form a kind of carpet. At the junction of the ſtalk of every leaf with the ſtem, is a berry reſembling a caper, but ſomething larger, ſmooth and gloſſy on the ſurface, and exactly of the ſame colour with the ſtem.

The ſeas on theſe coaſts abound in excellent fiſh, though not in ſo great a degree as thoſe near Juan Fernandes. Here are ſeen in particular a great number of whales, which come even into the bay; alſo tunny-fiſh and ſea-wolves. Among the amphibious creatures, here is one known all along theſe coaſts, and even at Callao. It is called Pajaro Nino, the bird-child. It in ſome parts reſembles a gooſe, except that its neck and bill are not arched, and is ſomething larger. It has a thick neck, a large head, and a ſtrong ſhort bill. Its legs very ſmall, and in walking the body is in an erect poſition. Its wings are ſmall, cartilaginous, and nearly reſemble the fins of the ſeal. Its tail is ſo ſmall as hardly to be diſtinguiſhed; its wings and whole body are covered with a ſhort brown hair, like that of the ſea-wolves, and generally full of white ſpots, though ſome are of other colours; ſo that, upon the whole, the bird makes no diſagreeable appearance. It lives promiſcuouſly either in the water or on land; on the latter it is eaſily taken, being very ſlow in its motions; but when attacked, bites ſeverely, though it is obſerved never to be the firſt aggreſſor.

CHAP. VII. — *Deſcription of the City of Santiago, the Capital of the Kingdom of Chili.*

AFTER giving an account of all the cities and places of note through which we paſſed, I muſt not omit the capital of the kingdom of Chili. We had not indeed occa-

ſion to viſit it perſonally; but by the informations we received from perſons beſt qualified to anſwer our enquiries, in the ports of its juriſdiction, to which our affairs called us more than once, we are enabled to gratify the curioſity of a rational reader.

The city of Santiago, originally called Santiago de la Nueſtra Eſtremadura, was founded by Captain Pedro de Valdivia, who began the foundation on the 24th of February 1541, in the valley of Mapocho, near that of Chili, which gives its name to the whole kingdom. It has not been ſubject to the revolutions of other places, but ſtill ſtands on its original ſpot, which is nearly in 33° 40′ ſouth latitude, and about twenty leagues from the harbour of Valparaiſo, the neareſt port to it in the South Seas. Its ſituation is one of the moſt convenient and delightful that can be imagined, ſtanding in a delightful plain of twenty-four leagues in extent, watered by a river flowing in meanders through the middle of it, and called by the ſame name of Mapocho. This river runs ſo near the city, that, by means of conduits, the water is conveyed from it through the ſtreets, and alſo ſupplies the gardens, which few houſes are here without, and hence the delightful ſituation of the place, and the pleaſure of the inhabitants are greatly heightened.

The city is a thouſand toiſes in length from eaſt to weſt, and ſix hundred in breadth from north to ſouth. On the ſide oppoſite the river, which waſhes the north part of it, is a large ſuburb, called Chimba; and on the eaſt ſide, almoſt contiguous to the houſes, is a mountain of a middling height, called Santa Lucia. The ſtreets are all of a handſome breadth, paved and ſtraight; ſome run exactly in an eaſt and weſt direction, and are croſſed by others, lying exactly north and ſouth. Near the middle of the city is the grand piazza, which, like that of Lima, is ſquare, with a very beautiful fountain in the center. On the north ſide are the palace of the royal audience, where the preſidents have their apartments, the town-houſe, and the public priſon. The weſt ſide is taken up by the cathedral and the biſhop's palace. The ſouth ſide conſiſts of ſhops, each decorated with an arch; and the eaſt is a row of private houſes. The other parts of the city are divided into inſulated ſquares of houſes, regular, and of the ſame dimenſions with thoſe of Lima.

The houſes here are built of adoves, or unburnt bricks, and very low; this neceſſary caution againſt the terrible devaſtation of earthquakes being equally neceſſary here as in all other towns of Peru, calamities with which this city has been often viſited; but the moſt remarkable are the following:

1. In the year 1750 an earthquake happened, which overflowed ſeveral mountains in this kingdom; many villages were entirely deſtroyed, and great part of the inhabitants buried in their ruins.

2. In the year 1647, on the 13th of May, many of the houſes and churches of this city were ruined by another ſhock.

3. In 1657, on the 15th of March, the earth was obſerved to have a tremulous motion for the ſpace of a quarter of an hour, and few of the buildings in the city were left ſtanding.

4. In 1722, on the 24th of May, great part of the houſes were damaged by another earthquake.

5. In the year 1730, on the 8th of July, happened that tremendous earthquake already mentioned in our account of Conception. This ſhock not only ruined the greateſt part of the city, but concuſſions were often felt for many months afterwards; and this cataſtrophe was ſucceeded by an epidemical diſtemper, which ſwept away even greater numbers than had before periſhed by the earthquake.

Notwithſtanding the houſes are low, they make a handſome appearance, and are well contrived both for pleaſure and convenience.

Beſides

Beſides the cathedral and the pariſh-church of the Sagrario, here are two others, namely, that of St. Anne, and St. Iſadoro. There are alſo three convents of St. Franciſco, San Diego, a college for ſtudents, and, without the city, a convent of Recollects; two of Auguſtines, one of Dominicans, one of the fathers of Mercy, one of St. Juan de Dios, and five colleges of Jeſuits, namely, St. Michael, the Noviciate, St. Paul, St. Xavier; a college for ſtudents, who wear a brown cloak, and a red ſcarf; and the college, called La Olleria, for the exerciſes of St. Ignatius. Here are alſo four nunneries, two of St. Clare, two of Auguſtines, and one of Carmelites; and a religious ſiſterhood, under the rules of St. Auguſtine: all which have a large number of recluſes, as is common in all the cities of Peru. The churches of the convents, beſides being very ſpacious, are built either of brick or ſtone, and thoſe of the Jeſuits are diſtinguiſhed by the beauty of their architecture. The pariſh-churches are in every reſpect greatly inferior to them.

The inhabitants of Santiago are computed at about four thouſand families, and of theſe nearly one half are Spaniards of all degrees; and among them ſome very eminent men, both of rank and opulence. The other moiety conſiſts of Caſts and Indians, but chiefly of the latter.

The cuſtoms here differ very little from thoſe already mentioned in our account of large cities. They are not ſo negligent in the care of their apparel as at Conception; and inſtead of the oſtentation of Lima, they follow the modeſt decency of Quito. The men, except on ſome particular ceremonies, generally wear ponchos, and all the families who can any way afford it, keep a calaſh for driving about the city. The men are robuſt, of a proper ſtature, well ſhaped, and of a good air. The women have all the charms of thoſe of Peru, and are rather more remarkable for the delicacy of their features, and the fineneſs of their complexions; but they diſfigure their natural beauty by a miſplaced art, painting themſelves in ſuch a prepoſterous manner, as not only to ſpoil the natural delicacy of their ſkin, but even their teeth; ſo that it is very rare to ſee a woman here of any age with a good ſet.

In this city is a royal audience, removed hither from Conception. It conſiſts of a preſident, four auditors, and a fiſcal, together with another officer dignified with the endearing title of patron of the Indians. The determinations of this court are without appeal, except to the ſupreme council of the Indies, and this is only in matters of notorious injuſtice, or denial of redreſs.

The preſident, though in ſome particulars ſubordinate to the viceroy of Lima, is alſo governor and captain-general of the whole kingdom of Chili; and, as ſuch, he is to reſide one half of the year at Conception, and the other at Santiago. During his abſence from the laſt city, the corregidor acts as his repreſentative; and his juriſdiction, on this occaſion, extends to all the other towns, except the military governments.

The magiſtracy, at the head of which is the corregidor, conſiſts of regidores, and two ordinary alcaldes. In theſe are lodged the police, and civil government of the city; and during the time the preſident reſides here, the juriſdiction of the corregidor is limited to the liberties of Santiago.

The office for the royal revenue is directed by an accountant and treaſurer; where are paid the tributes of the Indians, and other parts of the revenue; the ſalaries of officers within its department, and other aſſignments.

The chapter of the cathedral conſiſts of the biſhop, dean, archdeacon, chanter, four canons, and other ſubordinate eccleſiaſtics.

Here

Here is alſo a tribunal of Croiſade, the members of which are a ſub-delegate commiſſary, an accountant, and treaſurer. Likewiſe a commiſſion of inquiſition, all the officers of which are appointed by the tribunal of inquiſition at Lima.

The temperature of the air at Santiago is nearly the ſame with that of Conception. The luxuriancy of ſoil, and exuberance of all kinds of proviſions, the commerce, and other neceſſary particulars, I ſhall mention in the following account of the kingdom of Chili.

CHAP. VIII. — *Account of that Part of Chili within the juriſdiction of the Audience of Santiago.*

THE kingdom of Chili extends from the frontiers of Peru to the ſtreights of Magellan, the diſtance being five hundred and thirty leagues. Theſe two kingdoms, as I have mentioned in another place, are ſeparated by the deſart of Atacamo, which extends eighty leagues between the province of the ſame name, being the laſt of Peru, and the valley of Copoyapu, now corruptly called Copiapo, the firſt in Chili, and in every particular reſembles the deſart of Sectura. Eaſtward, ſome parts of this kingdom terminates on the frontiers of Paraguay, though ſome uninhabited deſarts intervene; and others border on the government of Buenos Ayres; though between theſe are the Pampas, or extenſive and level plains. Its weſtern boundary is the ſouth-ſea, extending from twenty-ſeven degrees nearly, the latitude of Copiapo, to 53° 30′. But to confine ourſelves to the true extent of this kingdom, as inhabited by the Spaniards, it begins at Copiapo, and terminates at the large iſland of Chiloe, the ſouthern extremity of which is in 34° of ſouth latitude; and its extent from weſt to eaſt is the diſtance between the Cordillera, which is here of a ſtupendous height, and the coaſt of the ſouth-ſea; that is, about thirty leagues.

Part of the country which at preſent compoſes the kingdom of Chili, was ſubjected to the empire of the Yncas by Yupanqui, the tenth emperor; who, incited by the inchanting account given of theſe provinces, undertook the conqueſt of them; and proſecuted the enterprize with ſuch ſucceſs, that he ſubdued the ſeveral nations inhabiting the valleys of Copoyapu or Copiapo, Coquimpu or Coquimbo, and Chili. But in his intended career ſouthward, the victorious Ynca met with an unſurmountable difficulty from the Purumauco Indians, and other nations, whom the rapidity of his conqueſts had induced to oppoſe him by a general confederacy. Thus he found himſelf under a neceſſity of deſiſting, after having carried his arms as far as the river Mauli, which is in the latitude of 34° 30′.

After the Spaniards had undertaken a deſcent in Peru, and made themſelves maſters of its ſeveral provinces, the Marſhal Don Diego de Almagro was commiſſioned for the conqueſt of Chili. Accordingly he marched from Cuſco at the beginning of the year 1535, and after loſing the greateſt part of his Indians, and a conſiderable number of Spaniards, who periſhed with cold in paſſing over the Cordillera Nevada, he arrived at Copiapo, where the Indians, without trying the chance of war, ſubmitted. Animated with ſuch unexpected puſillanimity, he proceeded to the conqueſt of other nations; even ſuch as never had acknowledged the Yncas. And though he here met with a more warlike people, who were determined to ſell their liberty dear, he carried on the war proſperouſly. But His Majeſty, in conſideration of his great ſervices, performed with ſo much hazard, having conferred on him the government of a territory a hundred leagues in length, ſouth of that which belonged to the Marquis

Don

Don Franciſco Pizarro, a difference aroſe between theſe two great men, with regard to the boundaries of their reſpective governments. Almagro, impatient to take poſſeſſion, and pretending that the city of Cuſco ought to be included in his government, the conqueſt was ſuſpended, and he himſelf haſtened to that city, where, inſtead of being inveſted with the chief command, he fell a ſacrifice to the jealouſy of Hernando Pizarro, who endeavoured to conceal his irregular proceedings under the veil of juſtice.

In the year 1541, the conqueſt of Chili was again ſet on foot, and the Marquis Pizarro conferred the command on Pedro do Valdivia, together with the title of general. Accordingly he marched into the country, and founded moſt of the principal towns and villages in it. So that in the year 1548, he was promoted to the government of it, by the preſident of Peru. In the proſecution of the conqueſt of theſe provinces, he had many ſharp ſkirmiſhes with the natives, till at laſt, in the year 1553, bravely oppoſing a general revolt with a very inferior force, he fell, fighting with the greateſt intrepidity, at the head of his troops, the greateſt part of whom, enraged at loſing ſo brave a man, choſe to periſh with him, rather than ſave themſelves by flight. His name, beſides the figure it makes in hiſtory, is ſtill preſerved in this country, in the town of Valdivia, which he founded.

The martial genius of the Indians of this kingdom conſiderably retarded the reduction of it; and has always been the chief cauſe why the Spaniſh ſettlements here are ſo little proportional to the extent, fertility, and riches of the country. Accordingly the captain-generalſhip of this vaſt kingdom has only four particular governments, and eleven juriſdictions; which are the following:

Particular governments in the kingdom of Chili:

I. The major-generalſhip of the kingdom of Chili.
II. Valparaiſo.
III. Valdivia.
IV. Chiloe.

Juriſdictions in the kingdom of Chili:

I. Santiago.
II. Rancagua.
III. Colchagua.
IV. Chillan.
V. Aconcagua.
VI. Melipilla.
VII. Quillota.
VIII. Coquimbo.
IX. Copiapo and Guaſco.
X. Mendoza.
XI. La Conception.

I. To the major-generalſhip of the kingdom of Chili, belongs the military government of the frontier towns and fortreſſes. Theſe are Arauco, the ſtated reſidence of the general Santajuana, Puren, Los Angeles, Tucapel, and Yumbel. It will be here neceſſary to obſerve, that not above five leagues ſouth of Conception bay, the ſea receives a river called Biobio, both the ſouth banks and head of which are inhabited by wild Indians: and to prevent their incurſions, ſtrong forts have been erected along the banks, and are always well garriſoned and furniſhed with all kinds of military ſtores. Among theſe on the ſouth banks of the river is the fort of Arauco, and the others at a proper diſtance eaſtward to the mountain of Tucapel. Thus all attempts from theſe Indians is precluded, and the Spaniſh ſettlements protected from their depredations. The general is obliged to viſit theſe forts from time to time, carefully inſpecting

ing into their condition, and, in caſe of neceſſity, to haſten to their relief. During his abſence, the commanding officer of each is the captain of the garriſon, which uſually conſiſting both of horſe and foot with their officers, the perſon on whom the command devolves is previouſly nominated. This important poſt is in the diſpoſal of the preſident, as ſuppoſed to be beſt acquainted with the merits of the ſeveral competitors when a vacancy happens; and that the ſafety of his government will induce him to prefer the moſt deſerving. Accordingly, whoever intends to offer himſelf a candidate for this poſt, ſhould ſolicit to be employed in the frontier ſervice, procure a competent knowledge of the ſtratagems of the Indians, and be very attentive to diſtinguiſh himſelf on any alarm or encounter. It is indeed expreſſed in the royal commiſſion, that the corregidor of Conception ſhall be the military commander-in-chief; and, conſequently, it is to him that the appointment of the general properly belongs; but this, from very powerful reaſons, is diſpenſed with, the proper diſcharge of theſe two poſts being utterly incompatible; and the civil and military requiſite here very rarely meeting in the ſame perſon. But when this obſtacle does not exiſt, and the corregidor is one of theſe extraordinary perſons, the preſident, agreeably to the royal expreſſion, confers the poſt of Maeſtre de campo on the corregidor of La Conception.

II. Valparaiſo is the ſecond military government. But the particular account of it, I ſhall defer for a more proper place.

III. Valdivia has a military governor nominated by the King. Here is alſo a good body of troops, both for garriſoning the place, and the forts built to defend the entrance of the river and harbours in it. Cloſe to the river ſtands the town, the inhabitants of which are chiefly whites or Meſtizos; but a village forming a kind of ſuburb is inhabited by friendly Indians. This government has undergone ſome viciſſitudes in point of ſubordination, being ſometimes independent of the preſidents of Chili, and immediately ſubject to the viceroy of Lima; and at other times a part of the former. At laſt, on weighing the difficulties for providing for any ſudden exigence, or having a watchful eye over its neceſſary concerns at ſo great a diſtance as Lima, it was annexed to the juriſdiction of the preſident of Chili, as being nearer at hand to ſee that the forces are always on a good footing, and conſequently in a proper poſture of defence.

IV. Chiloe has a military governor, who reſides at Chacao, the principal harbour of the iſland, being well fortified and capable of making a good defence. Beſides Chacas, which has the title of a city, is another place much larger, called Calbuco, where reſides a corregidor, who is nominated by the preſident of Chili. It has alſo regidores and alcaldes choſen annually. Beſides the pariſh-church here, is a convent of Franciſcans, another of the fathers of Mercy, and a college of Jeſuits. The iſland is every-where well peopled with Spaniards, Meſtizos, and Chriſtian Indians.

The kingdom of Chili has continually a body of regular troops, conſiſting of five hundred men, for garriſoning Valparaiſo, a fort at Conception, and thoſe on the frontiers. One half of this body is infantry and the other cavalry. Under the major-general who commands in chief, is a ſerjeant-major, whoſe duty it is to render them expert in all the various parts of military exerciſe; and that he may more conveniently render them ready at their ſeveral evolutions, he reſides at the fort of Jumbal, which lies in the center of the others. To theſe alſo belong a commiſſary-general of the horſe, whoſe poſt is at Arauco, and in the abſence of the general has the command. Theſe troops have alſo a muſter-maſter-general, who reſides at Conception. The ſtanding forces of Chili, till the beginning of this century, conſiſted of two thouſand men: but the great charge of ſupporting ſuch a body of troops occaſioned them to be reduced to the preſent number.

The produce of the revenue-officers at Santiago and Conception, not being ſufficient to defray the expences of even this ſmall body, a remittance of 100,000 dollars is every year ſent from Lima, half in ſpecie, and half in clothes, and other goods. But ſix or eight thouſand is annually deducted out of this ſum for repairing the forts of the frontiers, and making preſents to the deputies of the Indians who attend at conferences, or to ſatisfy thoſe who complain to the preſident of injuries received.

Valdivia alſo receives from the treaſury of Lima, an annual ſupply of 70,000 dollars, 30,000 in ſpecie, the value of thirty thouſand in clothes for the ſoldiers, and 10,000 in ſpecie, which is paid to the King's officers at Santiago, in order to purchaſe flour, charqui, graſſa, and other neceſſaries for the garriſon at Valdivia. Theſe remittances are conveyed in ſhips which ſail from Valparaiſo.

I. The juriſdiction of Santiago we have already obſerved to be limited to its boundaries.

II. Rancagua is a juriſdiction in the country, and owes its name from the inhabitants living in ſingle houſes, without the appearance of a village, every family in their lonely cottage, four, ſix, or more leagues from each other. It is not, however, without a kind of capital, conſiſting of about fifty houſes, and between fifty and ſixty families, moſt of them Meſtizos, though there caſt is not at all perceivable by their complexion. The whole juriſdiction may contain about a thouſand families, Spaniards, Meſtizos, and Indians.

III. Colchagua reſembles in every circumſtance the former, except its being better peopled; its inhabitants, according to the beſt computations, amounting to fifteen hundred families.

IV. Chilan is a ſmall place, but has the title of city, the number of families, by an accurate calculation, not exceeding two or three hundred, and having few Spaniards among them.

V. Aconcagua is a very ſmall place at the foot of the mountains, but the country is interſperſed with a great number of ſingle houſes. The valley of the ſame name is ſo delightful, that a town called Phelipe le Real, was built in it in 1741.

VI. Melipilla made no better figure than the foregoing juriſdictions, till the year 1742, when a town was erected in it by the name of St. Joſeph de Longronno.

VII. Quillota. The town of this name does not contain above a hundred families; but thoſe ſcattered over the country exceed a thouſand.

VIII. Coquimbo, or La Serena, according to Father Feuillée, ſtands in 24° 54′ 10″ ſouth latitude. This was the ſecond town built in the kingdom of Chili, in 1544, by Pedro de Valdivia, with a view of ſecuring the intercourſe between Peru and Chili, for the more convenient ſupply of what ſuccours might be wanted; and at the ſame time, for ſecuring the fidelity of the Indians who lived in that valley. This place is ſituated in the valley of Coquimbo, from whence it received its original name; but Valdivia gave it that of Le Serena, from an affection to the province of that name in Spain, and of which he was a native. It ſtands about a quarter of a league from the coaſt of the South Sea in a moſt delightful ſituation, having an extenſive proſpect of the ſea, the river, and the country, which preſents the ſight with a charming variety of fields of different kinds of grain, and woods of a lively verdure.

This town is of itſelf large, but not proportionally peopled; the number of families not amounting to above four or five hundred, conſiſting of Spaniards, Meſtizos, and a few Indians. The ſtreets are ſtraight and of a convenient breadth, ſome of which lying north and ſouth, and others interſecting from eaſt to weſt, the town conſiſts of ſquares of buildings, like Santiago, and other places of note in this part of America. The houſes are all of mud walls, and covered with leaves; but none are without a large garden, well planted with fruit-trees and eſculent vegetables, both thoſe of America

and Spain; for the climate is happily adapted to a variety of both kinds, the heats not being exceſſive, nor the colds ſevere; ſo that both in the fertility of the earth, and the cheerful appearance of the country, the whole year wears an aſpect of one perpetual ſpring. The ſtreets, though regular and convenient as above-mentioned, are not entirely formed by the houſes, parts of the intervals between the ſeveral ſquares being filled up with gardens; and moſt of them have ſo charming an appearance, as to atone for the mean aſpect of the houſes.

Beſides pariſh-churches, here is a Franciſcan, a Dominican, and an Auguſtine convent; one belonging to the fathers of Mercy, another to St. Juan de Dios; and a college of Jeſuits. The churches of theſe religious fraternities are large and decent. The pariſh-church occupies part of one ſide of the great ſquare; and oppoſite is the town-houſe, where the alcaldes and regidores meet, who with the corregidor form the corporation.

On the north ſide of Coquimbo runs the river, after flowing in various meanders through the whole valley of the ſame name; and by canals cut from it, furniſhes the town with water, one great uſe of which is to preſerve the beauty of their gardens.

IX. Copiapo is about twelve leagues from the ſea-coaſt, very irregularly built, but contains between three and four hundred families. The ſea-port neareſt to it is that known by the ſame name. There is indeed another port in this juriſdiction; but it lies thirty leagues farther to the ſouth, and conſiſts only of a few huts.

X. Mendoſa. The town of this name is ſituated on the eaſtern ſide of the Cordillera, at the diſtance of about fifty leagues from Santiago. It ſtands on a plain, and is decorated with gardens in the ſame manner as Coquimbo, and the place being well ſupplied with water by means of canals, no care is wanting to keep them in their greateſt beauty. The town conſiſts of about an hundred families, half Spaniards or whites, and the other half caſts. It has beſides a decent pariſh-church, a Franciſcan, Dominican, and Auguſtine convent, together with a college of Jeſuits. This juriſdiction has alſo two other towns, that of St. Juan de la Frontera, likewiſe to the eaſtward of the Cordillera, and about thirty leagues north of Mendoza, and St. Luis de Loyala, about fifty leagues eaſtward of Mendoza. The latter however is mean and ſmall, not containing above twenty-five houſes, and fifty or ſixty families, Spaniſh and caſts; though many more are ſcattered up and down the neighbouring country. In ſuch a ſmall place it is ſomething remarkable to ſee a pariſh-church, a Dominican convent, and a college of Jeſuits. Here the preſidents of Chili are received as governors of it, in their way to Chili from Buenos Ayres, this being the firſt place in their government on that ſide. The town of St. Juan de la Frontera is, in every reſpect, equal to Mendoza itſelf.

XI. The juriſdiction of Conception is the laſt; but having already given an account of it, I ſhall proceed to conſider the commerce carried on by the kingdom of Chili with Peru, Buenos Ayres, Paraguay, and its own towns; and ſubjoin an account of that carried on with the wild Indians bordering on it, with the manner of maintaining a harmony with theſe ſavage people. In the mean time I ſhall conclude this chapter with obſerving, that the corregidors of the whole juriſdiction are nominated by the King, except thoſe of Rancagua, Melipilla, and Quillota, who are appointed by the preſident of Chili. This is indeed the caſe of all the others, when a corregidor happens to die, before a perſon is nominated to ſucceed him; but the office of theſe corregidors being only for five years, the prolongation muſt be by His Majeſty's expreſs order. The inhabitants are formed into companies of militia, and every one knows the place of arms to which he is to repair on any alarm. Thus to Valparaiſo belongs the com-

panies of militia of Santiago, Quillota, Melipilla, Aconcagua, and Rancagua; and theſe in all amount to between two or three thouſand men, and are formed into troops and companies. Rancagua, when Santiago and Colchagua are threatened, is alſo to ſend ſuccours thither; and the ſame duty lies on Chillan with regard to Conception. In theſe caſes notice is conveyed with ſuch diſpatch, that they are ſpeedily at their rendezvous, all they have to do, being to mount their horſes and repair to their ſtation with the uſual pace uſed in that country, which is always a gallop; and thus the militia of this country may be ſaid to ride poſt to the parts where danger calls them.

CHAP. IX. — *Commerce of Chili. — Methods uſed to keep up a good Harmony with the wild Indians.*

IN my deſcription of the city of Conception, I mentioned the inchanting beauties of the neighbouring countries; and the exuberant returns of nature for the huſbandman's toil. The like profuſion of natural productions is ſeen all over this kingdom. Its plains, eminences, valleys, in ſhort the whole country to the ſmalleſt portion of ground, is an object of admiration. Every particle of earth in this amazing fertility ſeems transformed in ſeed. The country round Santiago, as it is not inferior in pleaſantneſs and fertility to that of Conception, ſo alſo from the great affinity to the climates, its products are nearly the ſame. Accordingly ſome farmers wholly apply themſelves to corn, others to fattening of cattle; ſome confine themſelves to the breeding of horſes, and others to the culture of vines and fruit-trees. The firſt find their account in plentiful harveſts of wheat, barley, and particularly in hemp, which thrives here ſurpriſingly, and ſurpaſſes thoſe of the former. The ſecond, at their large ſlaughters, have great quantities of tallow, graſſa, charqui, and ſole leather tanned. Of the goat-ſkins is made Cordovan leather; ſome tallow is alſo procured from thoſe creatures. Wines are made here of ſeveral ſorts, and though not ſo excellent as thoſe of Conception, they are very palatable and of a good body; brandy is alſo diſtilled from them. Theſe are the principal articles of the active commerce of this kingdom with Peru, which it ſupplies with wheat, tallow, and cordage; and by the moſt careful eſtimate, the quantity of wheat ſent annually from Santiago to Callao, amounts to 140,000 Tanegas, each weighing one hundred and fifty-ſix pounds; about eight thouſand quintals of cordage; and between ſixteen and twenty thouſand quintals of tallow: beſides ſole leather, nuts, filberts, figs, pears, and apples; graſſa, charqui, and neat tongues: the three laſt being no inconſiderable articles.

The more northern parts of the kingdom, as Coquimbo, produce olives, the oil of which is preferable to that of many parts of Peru; but being a natural commodity of that kingdom, and conſequently not an article of exportation, is conſumed at home. The country about Santiago, likewiſe, produces good olives; but in no great quantity, the genius of the inhabitants having not hitherto led them to make large plantations of thoſe trees.

Beſides the commerce carried on with Peru in proviſions, there is that of metals, this kingdom abounding in mines of all kinds, but principally of gold and copper, which we ſhall briefly conſider.

The moſt famous gold-mine known in Chili, is called Petorca, and lies in a country eaſt of Santiago. This gold was formerly highly eſteemed, and found in great plenty; but now, on account of a whitiſh tinge, the value of it is conſiderably diminiſhed.

This mine, for the length of time it has been worked, is equal to the moſt celebrated in Peru.

In the country of Yapel, which is ſituated in the ſame quarter, but farther to the northward along the Cordillera, are alſo rich gold-mines, and the metal twenty-three carats fine. In 1710, in the mountains of Lumpanqui near the Cordillera, were diſcovered mines of gold, ſilver, copper, lead, tin, and iron, the gold between twenty-one and twenty-two carats fine; but the working, from the hardneſs of the ſtone, where, according to the miner's phraſe, "the metal arms," was very difficult and laborious. This inconvenience does not however occur in the mountain Llaoin, where the ſtone is ſoft, and not leſs rich in metal, equal in fineneſs to the former. Beſides theſe, there are other gold-mines, worked with good ſucceſs at Tiltil, near Santiago.

Betwixt Quillota and Valparaiſo, in a part called Ligua, is a very rich gold-mine, and the metal greatly eſteemed. Coquimbo, Capiapo, and Guaſco, have alſo gold-mines, and the metal found in the two laſt, is, by way of pre-eminence, called Oro Capote, being the moſt valuable of any yet diſcovered. Another kind of mines of the ſame metal has alſo been found in this kingdom; but theſe were exhauſted almoſt as ſoon as they were opened. Mines of this kind are very common, as well as another kind called Lavaderos *, moſt of which are between Valparaiſo and Las Peanuelas, and about a league from the former. Some of them are alſo found at Yapel, on the frontiers of the wild Indians, and near Conception. Theſe, together with the others known in this kingdom, yield gold-duſt. Sometimes, indeed, lumps of gold of conſiderable magnitude are found; and the hopes of diſcovering theſe, animate many to work the mines.

All the gold thus collected in Chili is brought up in the country, and ſent to Lima to be coined, there being no mint in Chili; and, by the accounts conſtantly taken, it amounts, one year with another, to ſix hundred thouſand dollars; but that clandeſtinely ſent by way of the Cordillera is ſaid to be nearly four hundred thouſand. Conſequently, the whole muſt be at leaſt a million. In the countries of Coquimbo and Guaſco, mines of all kinds of metals are ſo very common, that the whole earth ſeems wholly compoſed of minerals; and it is here thoſe of copper are worked, and from them all Peru and the kingdom of Chili are furniſhed with that metal. But though this copper exceeds every thing of the kind hitherto known, the mines are worked with great caution, and no more metal extracted than is ſufficient to anſwer the uſual demand; and other mines, though known to be equally rich, are left untouched.

In exchange for the grain, fruits, proviſions, and metals, which Chili ſends to Peru, it receives iron, cloth, and linen made at Quito, hats, bays, though not many of the latter, there being manufactures of the ſame kind at Chili, ſugar, cacao, ſweetmeats, pickles, tobacco, oil, earthenware, and all kinds of European goods. A ſmall commerce is alſo carried on between the kingdom of Chili, Paraguay, and Buenos Ayres, of which the latter is the ſtaple. The products of Paraguay, which indeed conſiſt only in its herb and wax, are carried thither, then forwarded to Chili, whence the herb is exported to Peru. Large quantities of tallow are alſo ſent to Mendoza for making of ſoap. In exchange for theſe commodities, Chili ſends to Buenos Ayres linen and woollen ſtuffs, ſome of which are imported from Peru, and others manufactured in the country: alſo ponchos, ſugar, ſnuff, wine, and brandy, the two laſt the traders chiefly

* Theſe Lavaderos are pits dug in the angles of ravines or trenches made by rain, and in which it is imagined there may be gold, and, in order to diſcover the metal, a ſtream of water is turned through it, and the earth briſkly ſpread, that the gold may be carried down with the current, and depoſited in the pits.

buy

buy at San Juan, as moſt convenient for tranſportation. During the aſſiento for negroes, they are uſually brought to Chili from the factory at Buenos Ayres, the way of Peru being attended with great inconveniences; as in their journey from Panama, they take an opportunity of concealing themſelves among the farm-houſes; ſo that, what with the great expence, and the numbers who die during their long rout, by the variety of climates, their purchaſe muſt conſequently be very high.

The home-commerce of Chili, or that carried on within itſelf, chiefly conſiſts in the proviſions ſent to Valdivia to the amount of ten thouſand dollars, which, as the deducted part of its remittance, are ſent from Lima to Santiago for that purpoſe. Valdivia furniſhes the reſt of the places with cedar. Chiloe purchaſes from the other parts brandy, wine, honey, ſugar, the Paraguay herb, ſalt, and Guinea-pepper; and returns to Valparaiſo and Conception ſeveral kinds of fine wood, in which the iſland abounds; alſo woollen ſtuffs of the country-manufacture, made into ponchos, cloaks, quilts, and the like; together with hams, which, from the particular delicacy of the flavour, are in great requeſt even in Peru, and dried pilchards, the bay and coaſt of that iſland being the only places in the South Sea where the fiſh are caught.

Coquimbo ſends copper to Valparaiſo; for, though all parts of the Cordillera, towards Santiago and Conception, abound in mines of that metal, and particularly a place called Payen, where ſeveral were formerly worked, and where maſſes of fifty or a hundred quintals of pure copper have been found, yet as theſe mines are now no longer worked, the whole country is under a neceſſity of receiving their copper from the Coquimbo and Guaſco mines; ſending thither in exchange cordovan leather and ſoap, made at Mendoza, from whence it is carried to Santiago, and thence ſold to different parts of the kingdom.

Having thus conſidered the trade of Chili in both particulars, I ſhall next proceed to mention that carried on with the wild Indians, and this conſiſts in ſelling them hardware, as bits, ſpurs, and edge tools, alſo toys, and ſome wine. All this is done by barter; for, though the countries they inhabit are not deſtitute of gold, the Indians cannot be prevailed upon to open the mines; ſo that the returns conſiſt in ponchos, horned cattle, horſes of their own breeding, and Indian children of both ſexes, which are ſold even by their own parents for ſuch trifles; and this particular kind of traffic they call Reſcatar, ranſoming. But no Spaniard of any character will be concerned in ſuch barbarous exchanges, being carried on only by the guaſos, and the meaneſt claſs of Spaniards ſettled in Chili. Theſe boldly venture into the parts inhabited by the Indians, and addreſs themſelves to the heads of the ſeveral families.

The Indians of Arauco, and thoſe parts, are not governed by caciques, or Curacas, like thoſe of Peru, the only ſubordination known among them being with regard to age, ſo that the oldeſt perſon of the family is reſpected as its governor. The Spaniard begins his negociation with offering the chief of the family a cup of his wine. After this he diſplays his wares, that the Indian may make choice of what beſt pleaſes him; mentioning, at the ſame time, the return he expects. If they agree, the Spaniard makes him a preſent of a little wine; and the Indian chief informs the community that they are at liberty to trade with that Spaniard as his friend. Relying on this protection, the Spaniard goes from hut to hut, recommending himſelf at firſt by giving the head of every family a taſte of his wine. After this they enter upon buſineſs, and the Indian having taken what he wanted, the trader goes away without receiving any equivalent at that time, and viſits the other huts, as they lie diſperſed all over the country, till he has diſpoſed of his ſtock. He then returns to the cottage of the chief, calling on his cuſtomers in his way, and acquainting them that he is on his return home.

Upon

Upon this ſummons, not one fails of bringing him to the chief's hut what had been agreed on. Here they take their leave of him, with all the appearance of a ſincere friendſhip, and the chief even orders ſome Indians to eſcort him to the frontiers, and aſſiſt him in driving the cattle he has received in exchange for his goods.

Formerly, and even till the year 1724, theſe traders carried large quantities of wine, of which, as well as of all other inebriating liquors, the Indians are immoderately fond; but on account of the tumults and wars that aroſe from the intemperate uſe of ſpirituous liquors, this branch of trade has been ſuppreſſed, and no more wine allowed to be carried into the Indian territories than what ſhall be judged neceſſary to give the maſters of families a cup by way of compliment, and a very ſmall quantity for trading. The happy effects of this prohibition are felt on both ſides; the Spaniards live in ſafety, and the Indians in peace and tranquillity. They are very fair dealers, never receding from what has been agreed on, and punctual in their payments. It is indeed ſurpriſing, that a whole people, who are almoſt ſtrangers to government, and ſavage in their manners, ſhould, amidſt the uncontrouled gratification of the moſt enormous vices, have ſo delicate a ſenſe of juſtice, as to obſerve it in the moſt irreproachable manner in their dealings.

All the Indians of Arauco, Tucapel, and others inhabiting the more ſouthern parts of the banks of the river Biobio, and alſo thoſe who live near the Cordillera, have hitherto fruſtrated all attempts made for reducing them under the Spaniſh government. For in this boundleſs country, as it may be called, when ſtrongly puſhed, they abandon their huts, and retire into the more diſtant parts of the kingdom, where, being joined by other nations, they return in ſuch numbers, that all reſiſtance would be temerity, and again take poſſeſſion of their former habitations. Thus Chili has always been expoſed to their inſults; and, if a very few only call for war againſt the Spaniards, the flame immediately ſpreads, and their meaſures are taken with ſuch ſecrecy, that the firſt declaration of it is, the murder of thoſe who happen to be among them, and the ravages of the neighbouring villages. Their firſt ſtep, when a war is agreed on, is, to give notice to the nations for aſſembling; and this they call Correa la Fletcha, to ſhoot the dart, the ſummons being ſent from village to village with the utmoſt ſilence and rapidity. In theſe notices they ſpecify the night when the irruption is to be made, and, though advice of it is ſent to the Indians who reſide in the Spaniſh territories, nothing tranſpires: nor is there a ſingle inſtance, among all the Indians that have been taken up on ſuſpicion, that one ever made any diſcovery. And as no great armaments are neceſſary in this kind of war, their deſigns continue impenetrable till the terrible executions withdraw the veil.

The Indians of the ſeveral nations being aſſembled, a general is choſen, with the title of Toqui; and when the night fixed on for executing their deſigns arrives, the Indians who live among the Spaniards riſe and maſſacre them. After which, they divide themſelves into ſmall parties, and deſtroy the ſeats, farm-houſes, and villages, murdering all without the leaſt regard to youth or age. Theſe parties afterwards unite, and, in a body, attack the larger ſettlements of the Spaniards, beſiege the forts, and commit every kind of hoſtility; and their vaſt numbers, rather than any diſcipline, have enabled them, on ſeveral occaſions, to carry on their enterprizes with ſucceſs, notwithſtanding all the meaſures taken by the Spaniſh government to prevent them. For though multitudes of them fall on theſe occaſions, their army continually receives larger reinforcements. If at any time the Spaniards gain the ſuperiority, the Indians retire to the diſtance of ſeveral leagues, where, after concealing themſelves a few days, they ſuddenly fall on a different part from that where they were encamped, endeavouring

ing to carry the place by a ſudden aſſault, unleſs the commandant's vigilance has provided againſt any ſudden ſurpriſe; when, by the advantage of the Spaniſh diſcipline, they are generally repulſed with great ſlaughter.

Theſe Indian wars againſt the Spaniards uſually continue ſome years, being of little detriment to the Indians; for moſt of their occupations, which conſiſt in the culture of a ſmall ſpot of ground, and weaving ponchos and cloaks for apparel, are carried on by the women. Their huts are built in a day or two, and their food conſiſts of roots, maize, and other grain. War, therefore, is no impediment or loſs to them; indeed, they rather conſider it as a deſirable occupation, their hours, at other times, being ſpent in idleneſs or carouſals, in which they drink chica, a liquor common among them, and made from apples.

The firſt advances towards a treaty of peace with theſe Indians are generally made by the Spaniards; and as ſoon as the propoſals are agreed to, a congreſs is held, at which the governor, major-general of Chili, and the principal officers, the biſhop of Conception, and other perſons of eminence aſſiſt. On the part of the Indians the toqui, or generaliſſimo, and the captains of his army, as repreſentatives of the communities, repair to the congreſs. The laſt inroad made by theſe ſavage enemies was in the year 1720, during the government of Don Gabriel Cano, lieutenant-general of His Majeſty's forces, who managed the war againſt them with ſuch vigour and addreſs, that they were obliged to ſolicit a peace; and their preliminaries were ſo ſubmiſſive, that at a congreſs held in 1724, the peace was concluded, whereby they were left in poſſeſſion of all the country ſouth of the river Biobio; and the Capitaines de Paz were ſuppreſſed. Theſe were Spaniards reſiding in the villages of the converted Indians, and by their exactions had been the principal cauſe of the revolt.

Beſides the congreſſes held with theſe Indians, for concluding a treaty of peace, others are held on the arrival of a new preſident, and the ſame ceremonies obſerved in both; ſo that an account of the one will be ſufficient to give a juſt idea of the other.

On the holding a congreſs, the preſident ſends notice to the frontier Indians of the day and place, whither he repairs with the above-mentioned perſons; and on the part of the Indians, the heads of their ſeveral communities; and both, for the greater ſplendor of the interview, are accompanied by an eſcort conſiſting of a certain number previouſly agreed on. The preſident and his company lodge in tents, and the Indians encamp at a ſmall diſtance. The elders or chiefs of the neighbouring nations pay the firſt viſit to the preſident, who receives them very courteouſly, drinks their healths in wine, and himſelf gives them the glaſs to do the like. This politeneſs, with which they are highly pleaſed, is ſucceeded by a preſent of knives, ſciſſars, and different ſorts of toys, on which they place the greateſt value. The treaty of peace is then brought on the carpet, and the manner of obſerving the ſeveral articles is ſettled: after which they return to their camp, and the preſident returns the viſit, carrying with him a quantity of wine ſufficient for a moderate regale.

Now all the chiefs of the other communities, who were not preſent at the firſt viſit, go in a body to pay their reſpects to the preſident. At the riſing of the congreſs, the preſident makes each a ſmall preſent of wine, which the Indians liberally return in calves, oxen, horſes, and fowls. After theſe reciprocal tokens of friendſhip, both parties return to their reſpective habitations.

In order to gain more effectually the hearts of theſe Indians, who, though in our eſteem wretchedly poor, conceal the moſt ſtubborn pride, which can only be ſoftened by compliments and favours, it is a maxim with the preſidents to admit to their table thoſe who are apparently of the beſt diſpoſitions, and during the three or four days of the

the congreſs, neglects no means of ingratiating himſelf with the whole body. On theſe occaſions a kind of fair is held at both camps, great numbers of Spaniards repairing thither with ſuch goods as they know will pleaſe the Indians, who alſo come with their ponchos and cattle. Both parties deal by exchange, and never fail of ſelling their whole ſtocks; and of obſerving in their dealings the moſt exact candour and regularity, as a ſpecimen by which all future commerce is to be conducted.

Though theſe Indians have ſhewn ſuch a determined averſion to ſubmitting to the Spaniſh monarchs, their behaviour has been very different to the miſſionaries, whom they voluntarily permitted to come among them; and many have even ſhewed the greateſt joy at being baptized. But it is extremely difficult to prevail on them to quit their free manner of living; which being productive of vice and ſavageneſs, prepoſſeſſes the mind againſt the precepts of the Chriſtian religion. Before the war of the year 1723, the miſſionaries, by their indefatigable zeal, had formed ſeveral villages, hoping by that means to induce their converts to practiſe the doctrines of the Chriſtian faith. Theſe villages were called St. Chriſtopher, Santa Fé, Santa Juana, St. Pedro, and La Mocha, all of them being under the inſpection of the Jeſuits. The chaplains alſo of the forts on the frontiers had an additional ſalary for inſtructing a certain number of Indians. But on that general inſurrection, their innate ſavageneſs returned, all theſe converts abandoned the miſſionaries, and joined their countrymen. On the re-eſtabliſhment of the peace, they again ſolicited the miſſionaries to come among them; and ſome communities have been ſince formed; but they are far ſhort of their former promiſing ſtate, it being very difficult to bring even this ſmall number to embrace a ſocial life.

Amidſt all the ſanguinary rage of theſe Indians in their hoſtilities againſt the Spaniards, they generally ſpare the white women, carrying them to their huts, and uſing them as their own. And hence it is, that many Indians of thoſe nations have the complexions of the Spaniards born in that country. In time of peace many of them come into the Spaniſh territories, hiring themſelves for a certain time to work at the farm houſes, and at the expiration of the term return home, after laying out their wages in the purchaſe of ſuch goods as are valued in their country. All of them, both men and women, wear the poncho or manta, which they weave from wool, and though it cannot be properly called a dreſs, it is abundantly ſufficient for decency; whereas the Indians at a greater diſtance from the Spaniſh frontiers, as thoſe who inhabit the countries ſouth of Valdivia, and the Chonos who live on the continent near Chiloe, uſe no ſort of apparel*. The Indians of Arauco, Tucapel, and other tribes near the river Biobio, take great delight in riding, and their armies have ſome bodies of horſe. Their weapons are large ſpears, javelins, &c. the uſe of which they are very dextrous.

CHAP. X. — *Voyage from Conception to the Iſland of Juan Fernandes; and from thence to Valparaiſo.*

THE ſhips being come to an anchor in the port of Talcaguana, we waited on Don Pedro de Mendinueta, at the city of Conception, who informed us that the commodore Don Joſeph Pizarro, together with the land and ſea officers, were arrived at Santiago, and that he intended to ſet out for Valparaiſo, in order to hoiſt his flag on board the Eſperanza, and take upon him the command of that ſquadron: on receiving this intel-

* Theſe Indians now dreſs like the former. A.

ligence, and having no orders to continue at Conception, we put to sea on the ſixth of February, and ſteering for the place of our deſtination, made, on the 20th, the iſland De Tierra de Juan Fernandes, and at half an hour after ten, as we were plying to windward along the coaſt, and ſtanding towards the iſland which then bore two leagues weſt from us, we ſaw on the top of one of the mountains a bright light, which ſurpriſed us the more, as on the following day we ſaw no traces of any ſhip's being in the port ſince we left it. I had a clear view of it from the inſtant it began, and obſerved that at firſt it was very ſmall, and increaſed, ſo as to form a flame like that of a flambeau. The full vigour of its light laſted about three or four minutes, when it diminiſhed in the ſame gradual manner it had increaſed. It did not appear again all the next night, [illegible] had we during the whole time we were at anchor in the port, any view of ſuch a phænomenon. We ſent ſome of our people on ſhore to examine all the mountains, and other parts of the iſland, and they ſpent ſeveral nights on that and the adjacent mountains, but could not diſcover the leaſt veſtige of any fire. As I knew the iſland to be abſolutely deſtitute, the ſanguine colour of the flame inclined me to think there might be ſome volcano; but having never ſeen any thing of the kind before, nor heard from others that there was ever any eruption, I was far from being tenacious of my opinion. We had indeed all our conjectures; but the difficulty was not cleared up till my fifth and laſt voyage to this iſland, when Don Joſeph Pizarro ſent ſome people on ſhore to take an accurate ſurvey of this place, and the ground was found to be burnt, full of fiſſures and hot, which verified my firſt opinion of a volcano.

On the 21ſt, after coaſting along this iſland, we continued our courſe for Valparaiſo, where our little ſquadron came to an anchor on the 24th, and were the more pleaſed, as we found there the preſident of Santiago, Don Joſeph Manſo, and our commodore; and in the harbour, beſides the Callao fleet, three French ſhips, called the Louis Eraſme, Notre Dame de la Delivrance, and the Lys, which had been freighted by four merchants as regiſter ſhips; and Valparaiſo was the firſt port they had touched at, for vending their cargoes.

From ſeveral obſervations made in this harbour by Don George Juan, in the laſt voyage of 1744, its latitude appears to be 33° 02′ 36″ 30‴, and Father Feuillée ſettled its longitude at 304° 11′ 45″ from the meridian of Teneriff. This town was at firſt very mean, conſiſting only of a few warehouſes built by the inhabitants of Santiago for laying up their goods till ſhipped off for Callao, the harbour of Valparaiſo being the neareſt port to that city, from which it is only twenty leagues diſtant, though the natives will have it to be more. The only inhabitants at that time were the few ſervants left by their reſpective maſters for taking care of the warehouſes, and managing their mercantile affairs. But in proceſs of time, the merchants themſelves, together with ſeveral other families, removed from Santiago, in order to be more conveniently ſituated for trade; ſince which it has gradually increaſed, ſo that at preſent it is both large and populous; and would be ſtill larger were it not for its inconvenient ſituation, ſtanding ſo near the foot of a mountain, that a great part of the houſes are built on its acclivity, or in its breaches. The broadeſt and moſt convenient part is that along the coaſt, but this is very unpleaſant in winter, being ſo expoſed to the north winds, that the waves beat againſt the walls of the houſes, ſome of which are built of unburnt bricks, ſome of chalk and pebbles, and others of bajareques.

Valparaiſo, beſides its pariſh-church, has a convent of Franciſcans, and another of Auguſtines; but very few religious, and the churches belonging to them ſmall and mean. It is inhabited by families of Spaniards, and Caſts, both Mulattoes and Meſtizos. In its neighbourhood are ſeveral villages, and the great number of farm-houſes

give

give the country a cheerful appearance. Here is a military governor nominated by the King, who having the command of the garrifons in the feveral ports, and of the militia of the place and its dependencies, is to take care that they are properly difciplined.

The proximity of this port to Santiago has drawn hither all the commerce formerly carried on at that city. To this it owes its foundation, increafe, and prefent profperity. At prefent all the Callao fhips which carry on the commerce between the two kingdoms come hither. The cargoes they bring are indeed but fmall, confifting only of the goods already mentioned, as not produced in Chili. But in this port they take in wheat, tallow, cordovan leather, cordage, and dried fruits, and with thefe return to Callao; and a fhip has been known to make three voyages in one fummer, namely, between November and June, during which interval the droves of mules and carriages from all the farm-houfes in the jurifdiction of Santiago bring freh fupplies to the warehoufes, that trade is carried on both by land and fea. The maflers of fhips, who generally refide at Lima or Callao, enter into partnerfhip with the landed gentlemen of Chili, that the cargo of every fhip generally belongs in part to the maflter; though fome fhips are freighted, and, if the loading be wheat, greatly augments its value; for the fanega coffs here only ten or twelve rials, or two dollars, and the freight is from twelve rials to two piaflers. Another circumflance which raifes the price of wheat at Callao, where it is fold for twenty-four or thirty rials, is, that the fanega is there only five arobas and five pounds, whereas at Chili the fanega is fix arobas and fix pounds.

This commerce being carried on only in fummer, that feafon may be termed the fair of Valparaifo; but on the approach of winter the place becomes as remarkably defolate, the crowd of traders repairing to Santiago, thofe only continuing at Valparaifo who cannot afford to remove.

Valparaifo is abundantly fupplied with provifions from Santiago, and other places in its neighbourhood; but fhips do not victual here fo cheap as at Conception. The fruits cannot be viewed without admiration, both with regard to their beauty and fize, particularly a fort of apples called Quillota, being brought from that place; they prodigioufly exceed the largeft in Spain, and, befides their exquifite flavour, are fo luficious that they melt in the mouth.

Among the feveral kinds of game, there is here fuch a plenty of partridges in their feafon, which begins at March and lafts feveral fucceeding months, that the Santiago muleteers knock them down with ficks without going out of the road, and bring great numbers of them to Valparaifo. But few of thefe or any other birds are found near the town. It is the fame thing with regard to fifh*, very little being to be caught either in the harbour or along the coaft, in comparifon of what may be taken in the other parts.

The coaft of Valparaifo forms a bay, lying north-eaft and fouth-weft, three leagues in length, and having two capes, called Concon, and Valparaifo. In the fouth-weft part of this bay is the harbour, of a convenient fize, and running above a league farther up the country. The bottom is a firm tenacious mud. At the diftance of a cable's length and a half from the fhore, is from fourteen to fixteen fathom water, which increafes in depth proportionally the diftance, that at the diftance of half a league there is thirty-fix or forty fathom. The harbour is every-where free from rocks and fhoals, except to the north-eaft of the beach De los Angeles, where, about a cable's length or two from the land is a rock, which muft be the more carefully avoided, as it never appears above water, but fometimes has no depth fufficient for a fhip of any burden to pafs over it. The

* They take their fifh by fhooting a barbed arrow into them, which has a long light fhaft, that fuffers the fifh not to fink after it is wounded. A.

courſe into this harbour is to keep near the point of Valparaiſo, within a quarter of a league from the ſhore, where there is twenty, eighteen, and ſixteen fathoms water. After getting round the point, you muſt ſtand nearer to the ſhore, in order to avoid a bank which lies thereabouts; not that it can be attended with any danger; for the ſide of it is ſo bold, that if the ſhip ſhould touch it little damage could enſue. This bank is always above water, and there is a neceſſity for paſſing ſo near it, in order to keep to windward, as otherwiſe it would be difficult to fetch the harbour. Regard muſt alſo be had to the time proper for entering the port of Valparaiſo; for it is by no means proper to attempt it in the morning, as the wind, though blowing freſh without, does not then extend ſo far into the bay, and thus the ſhip, by having very little way, and conſequently not anſwering her helm, might drive upon the bank; and to let go your anchor in fifty fathom water, which is the depth cloſe to the ſand, will be very inconvenient. The common method, therefore, is to keep in the offing till about noon, or ſomething after, when the wind uſually continues to the bottom of the harbour, and then, by obſerving the above-mentioned rules, the ſhip will fall into her ſtation without any difficulty; or you may run into the bay, and there come to an anchor till the day following, and then weigh early and go in with the land-breeze, here called Concon, as blowing from that point; and this breeze may be depended on every day at a certain hour, except during the time of the north winds, which cauſe ſome alteration in it.

The ſafeſt method of mooring ſhips is lying one anchor on the ſhore towards the ſouth-ſouth-weſt, and another in the channel towards the north-north-weſt. The former muſt be well ſecured, as the reſource againſt the ſouth and ſouth-weſt winds; for though they come over the land, they are often ſo violent, and the ſhore of the harbour ſo ſloping, that the ſhips would otherwiſe drive.

As ſoon as the north winds ſet in, which happens in the months of April and May, the veſſels in the harbour are expoſed to their whole violence, which alſo cauſes a very high ſea. In this exigence, the whole ſecurity of the ſhips depends on the anchor and cable towards the north-north-eaſt, it will therefore be very proper to lay another in the ſame direction; for if it ſhould give way, it would be impoſſible to hinder the ſhip from ſtriking on the rocks near the ſhore. The only favourable circumſtance here is, that the bottom being very firm, and riſing towards the ſhore, the anchor has good hold and conſequently the whole depends on the ſtrength of the cable.

CHAP. XI. — *Voyage from Valparaiſo to Callao: — ſecond Return to Quito to finiſh the Obſervations: — third Journey to Lima in order to return to Spain by the way of Cape Horn.*

THE ſervice our ſquadron was employed on being that of cruizing in thoſe ſeas, in queſt of the enemy as long as it ſhould be thought requiſite, the commodore, without ſtaying any longer than was abſolutely neceſſary, came on board, and we immediately put to ſea, and ſeveral times viſited the iſlands of Juan Fernandes, to the 24th of June 1743, when we ſhaped our courſe for Callao, which port we entered on the 6th of July. The day following the commodore and principal officers went aſhore, and were received by Don Joſeph de Llamas, general of the forces in Peru and government of Callao; who, on account of the firſt employment, reſides at Lima, but was come to Callao to compliment the commodore. He attended him to Lima, and introduced him to the viceroy, who expreſſed his great ſatisfaction at his ſafe arrival after ſuch long expectations. He was alſo met on the road by the principal perſons of the city.

After

After taking our departure from the iſland De Tierra de Juan Fernandes, we ſteered the three firſt days north-north-eaſt, and north-eaſt, one quarter northernly, having freſh gales at weſt, and a heavy ſea from the ſouth-weſt. When we came into the latitude of 28° 30′ we ſteered north, ſix or ſeven degrees eaſterly, till the third day at nine in the morning, when being in the latitude of 16° 28′ we made the land on the coaſt of Chala; and the day following, being the 4th, the iſland of Sangallan, which at noon bore eaſt-north-eaſt diſtance ſix leagues. We then coaſted along the ſhore, and on the 5th at noon, we ſaw the iſle of Aſia, bearing eaſt-north-eaſt ſix leagues diſtant; and on the 6th as before-mentioned, the ſquadron came to an anchor at half an hour after one in the afternoon, in Callao harbour.

Hence it appears, that till we were in the latitude of 28° 30′, the wind was at ſouth-weſt, which agrees with my obſervations, mentioned Chap. III. relating to this ſea; and if no other circumſtance concurred to verify them, it muſt be imputed to the ſeaſon of the year, it being the beginning of winter when we returned to Callao. But as during the firſt three days, the ſtrength of the wind had driven us near the coaſt, ſo from the la[illegible]tude we found it farther to the ſouth; between twenty-five and twenty-one, began to in[illegible]cline towards the ſouth-eaſt, and from the latitude of twenty degrees, when we found [illegible]urſelves near the land, till our arrival at Callao, we had the wiud ſouth-ſouth-eaſt, [illegible]nd eaſt-ſouth-eaſt. It was the ſame with regard to the ſea coming from the ſouth-w[illegible]ſt, for it gradually diminiſhed as we approached the coaſt; ſo that from twenty-five [illegible]legrees it was not at all troubleſome, and after we were paſt twenty-one degrees, be[illegible]ame imperceptible. But it was very different with regard to the current, which, fron[illegible]the parallel of twenty or twenty-one degrees, we perceived to ſet towards the north-w[illegible]t, parallel to the direction of the coaſt, and became much more ſenſible after we had [illegible]ight of the land, its velocity increaſing as latitude decreaſed.

I would re[illegible]ommend two precautions to be uſed in the voyage from Chili to Callao. The firſt is n[illegible] to make the land in the bay of Arica, the many eddies of the current there renderi[illegible]s it very difficult to get again clear of the coaſt; which muſt be done by keeping a[illegible]ong ſhore; as by ſtanding out to ſea, you will be in danger of not reaching the l[illegible]arbour; for the current ſetting north-weſt, on ſtanding in for the land, you will proba[illegible]ly find yourſelf to leeward of the harbour; in which caſe it will be far from eaſy to w[illegible]k up againſt the wind and ſtrong current. The ſecond flows from the former, and is [illegible]make the land ſomewhere between Naſca and Sangallan, as the coaſt may be then [illegible]pt at a proper diſtance, and the danger of falling to leeward of the port avoided; a[illegible]misfortune which has happened to many, who have been carried far-ther out than they [illegible]expected; ſo that after a long look-out for land, they find themſelves on its firſt appeara[illegible]nce to leeward of their port.

In winter, eſpec[illegible]ally, too much care cannot be taken, as from the continual thick-neſs of the atmoſp[illegible]here, obſervations cannot be made ſo often as requiſite; ſometimes not for five or ſix [illegible]days ſucceſſively; at the ſame time the ſight of land is entirely inter-cepted by the den[illegible]ty of the fog. This we experienced; for after we were anchored in Callao at only [illegible]quarter of a league diſtant from the land, the people on the ſhore had no ſight of the[illegible]ſhips; and it was owing to our being very near the coaſt that we made the harbour; [illegible]for had we been at a diſtance, we ſhould have been far to leeward, when the weather cl[illegible]ared up.

On the 25th of Ju[illegible]e, being the ſecond day after our departure from the iſland De Tierra de Juan Fern[illegible]des, we ſaw a meteor like that we had before ſeen at Quito, namely, a globe of f[illegible]e, or large globe of inflammable exhalations. It firſt appeared in the weſt, at half an [illegible]hour after three in the morning, and moved with great velocity for

for a conſiderable ſpace towards the eaſt, as if carried by the wind. The light of this meteor was ſuch, that the watch on the quarter-deck could plainly diſtinguiſh every perſon on the fore-caſtle; and both were not a little terrified. The phænomenon laſted between three and four minutes, and half an hour after we felt two violent ſhocks, at an interval of about a minute and a half betwixt them, ſo that all apprehended the ſhip had ſtruck on ſome ſhoal; but on reflection, we concluded it to be the effect of an earthquake.

The ſquadron being ſafely arrived at Callao, with the commander-in-chief of the South Sea, a title given to Don Joſeph Pizarro, and a ſufficient number of officers of ſuch diſtinguiſhed zeal and experience, that they might well ſupply our place without detriment to the ſervice; and at the ſame time, we being willing to put the finiſhing hand to our principal work, we aſked the viceroy's leave to return to Quito; but his excellency was deſirous that we ſhould firſt complete ſome particulars he had committed to our care. Accordingly we applied ourſelves aſſiduouſly to our work; and Don George Juan, having finiſhed his part firſt, left Callao on the 14th of November to make all the neceſſary preparatives againſt my arrival, that the proper obſervations might be made without delay. On the 27th of January 1744, I reached Quito; where I found that Don George Juan had, by his extraordinary care, nearly finiſhed every thing neceſſary for the continuation of our work; and whilſt the remaining obſervations forming, we had an opportunity, in conjunction with M. Godin, the academician now remaining in this province, of obſerving the comet which appeared this year.

Though the comet might have been ſeen on the 2d and 3d of February, only French phere of Quito being ſo unfavourable to aſtronomical obſervations on clouds, it was the 6th before we could obſerve it. The comet was then in the eaſtern part of the horizon, and being behind the mountain of Pichincha, the atmoſphere concealed it from our ſight, ſo that we could not obſerve it after its account of that night. On the 6th, at ſeven in the evening, we found its altitude near the weſtern to be fifteen degrees, and its azimuth from the north, ſeventy-two degrees, its azimuth and Don George Juan judged its nucleus to be oblong, to me it appeared perfectly circular; but we all agreed that it was larger than Jupiter. The tail was diſcerned through ſome light clouds, ſeemed to extend two degrees, to form with the vertical circle, an angle of near thirty degrees.

On the 7th, at eight minutes after ſeven in the evening, on repeating our obſervations, we found its altitude to be 11° 11′, and its azimuth from the former, From this ſecond obſervation, which we conſidered as more accurate, having made proper allowances for refraction, we concluded that Whence we of the comet was 332° 50′, and that its northern declination was 2° Caſſini, and by inferred, that its trajectory was the ſame with that obſerved in 168 for though the Tycho Brahe in 1572, and that in all probability, it was the ſa After this we periods do not agree, it might have appeared twice in the firſt int the nights; and were hindered from proſecuting our obſervations by the cloudine in the morning. ſome days afterwards we were aſſured by ſeveral, that they had where M. Godin

As all the triangles on the north ſide from Pambamarca to the pd the inſtrument had made his ſecond aſtronomical obſervations were not complete taſk; M. Godin conſtructed for that purpoſe kept in readineſs, we made that o here, we repaired not having then gone through them all. After finiſhing every here, meeting with on the 22d of March to the obſervatory De Pueblo Viejo de Mi the

the ſame difficulties from the thickneſs of the atmoſphere as we had before experienced during the whole courſe of our operations, we were obliged to continue there till the 22d of May, when, being ſatisfied with the accuracy of the obſervations made during this long interval, we returned to Quito, with the pleaſing expectation, that our perſeverance againſt the conſtant difficulties we met with from the clouds was at laſt come to a period; and that we ſhould now reſt from the toils and hardſhips of living on frozen deſarts; a repoſe the more pleaſing, as it was accompanied with a conſciouſneſs that no inconveniences had occaſioned us to omit the leaſt part of our duty.

During our ſtay at Mira, Don George Juan applied himſelf to obſerve the variation of the magnetic needle, and by four obſervations nearly coincident, he concluded to be nearly 8° eaſterly.

We now began to deliberate on our return upon the favourable opportunity of the above-mentioned French ſhips, which were preparing to ſail for Spain; as we ſhould then paſs round Cape Horn, and not only complete from our own experience, an account of the South Sea, but be enabled to make obſervations on the whole courſe. Another, and indeed our principal motive was, the ſafety of our papers, concluding there could be no danger in a neutral ſhip, as we then imagined thoſe to be. The concurrence of many advantages immediately determined us; and leaving Quito we ſet out for Lima, where I arrived firſt, Don George Juan having ſome days been detained at Guayaquil by a freſh commiſſion by the viceroy. Theſe ſhips, not ſailing ſo ſoon as expected, I employed the interval in drawing up an extract of all intereſting obſervations and remarks, and preſenting it to the viceroy, who was pleaſed to order the papers to be reſerved in the ſecretary's office, that if any misfortune ſhould happen to us in the voyage, our ſovereign might not be totally diſappointed in his generous views of promoting the uſeful ſciences of geography and navigation.

While we were employed in finiſhing our obſervations at Mira, the univerſity of Lima gave a remarkable teſtimony of their ſenſe of M. Godin's eminent talents, by chooſing him profeſſor of mathematics, in the room of Don Pedro de Peralta, deceaſed; which he accepted of with the greater ſatisfaction, as ſome indiſpenſable affairs of his company would not permit him to gratify his deſires of returning to Europe. Accordingly he propoſed to ſpend this interval in making freſh obſervations and experiments, concluding the atmoſphere of Lima, during the ſummer-ſeaſon, would be more favourable to ſigns than that of Quito or the mountains. On his arrival at that city, the viceroy, who was no ſtranger to his great abilities, and pleaſed with the prudent choice of the univerſity, conferred on him, at the ſame time of his being inveſted with the profeſſorſhip, the poſt of coſmographer to His Majeſty; with other advantages annexed to it. But this gentleman was far from propoſing to make any longer ſtay there than what theſe affairs required; no advantages or honours being ſufficient to make him forget the obligations he was under of giving an account of his voyage and obſervations to his ſovereign and the academy, eſpecially as being the eldeſt of the three academicians; ſo that all the teſtimonies of eſteem could not ſuppreſs his uneaſineſs at the delay.

M. de Juſſieu, though with the ſame regret as the former, determined to continue ſome time at Quito, with M. Hugot, till he ſaw what turn the war would take, that he might eſcape, in his return to Europe, thoſe dangers then ſo common at ſea. M. Verguin choſe to go by the way of Panama: and the others, except the two who died in the country, one at Cayambe and Cuenca, were diſperſed; one ſettling in

Quito.

Quito. Thus, the whole French company ſeparated: and it muſt be conſidered as a ſingular happineſs that, after ſuch a ſcene of labours, hardſhips, and dangers, in ſuch a variety of climates, and amidſt ſuch inhoſpitable deſarts and precipices, our operations were accurately performed: and we capable of entering on a new ſcene of dangers and difficulties, which it was our fortune to experience before we were in a condition of preſenting this work to the public.

VOYAGES AND TRAVELS

INTO

BRAZIL.

WITH

A PARTICULAR ACCOUNT OF ALL THE REMARKABLE PASSAGES THAT HAPPENED DURING THE AUTHOR'S STAY OF NINE YEARS IN BRAZIL;

Eſpecially in relation to the Revolt of the Portugueſe, and the inteſtine War carried on there from 1640 to 1649.

By MR. JOHN NIEUHOFF.*

ADVERTISEMENT TO THE READER.

IT is about nineteen years ſince my brother, John Nieuhoff, juſt before his ſecond voyage into the Indies, preſented me with his deſcription of China, and certain draughts he had made during his embaſſy in that empire, which, being afterwards publiſhed, were ſoon tranſlated into ſix ſeveral languages.

My brother had before that time, not only been in Brazil, and ſeveral other places in thoſe parts, but ſince that time, has had the opportunity of travelling through a great part of Aſia till 1671, when, returning into Holland, he brought along with him all his papers, obſervations, and draughts, he had collected during his voyages; which, though much coveted by all curious perſons, yet for ſome reaſons beſt known to himſelf, he did not think fit to commit to public view.

But, after his deceaſe, conſidering with myſelf that ſuch uſeful collections ought not to be buried in oblivion, I thought fit to publiſh them for the public good.

As thoſe things which he relates of the revolt of the Portugueſe in Brazil, are extracted *verbatim* out of the records kept during my brother's abode of nine years in Brazil, under the government of the lords, Henry Hamel, Peter Bas, and Adrian Bulleſtrate, and authentic letters; ſo the truth thereof admits not of the leaſt doubt from unbiaſſed perſons.

The vaſt countries through which my brother travelled in his life-time, as Brazil, part of Perſia, Malabar, Madura, Coromandel, Amboyna, Ceylon, Malacca, Sumatra, Java, Tagowan, and part of China, beſides many iſlands, could not in the leaſt infect him with that diſeaſe, ſo incident to travellers, to relate fables inſtead of hiſtories, it having been his conſtant practice to adhere moſt religiouſly in all his treatiſes to the naked truth, without the leaſt diſguiſe.

His laſt voyage to the iſle of Madagaſcar, where he was loſt, I have taken partly out of his own letters, partly out of the journal of Captain Reinard Claeſon, which he brought along with him thence.

* Churchill's Coll. Vol. II.

As to his perſon, I will only add thus much: he was born at Uſſen, in the earldom of Benthem, (where his father, brother, and brother-in-law, were all three Burgomaſters) of a good family, the 22d of July 1618. He was a comely perſon, of a good underſtanding, good humoured, and agreeable in converſation; a great admirer of poeſy, drawing, and muſic: as he delighted in travelling, ſo he was thereby become maſter of divers languages: in what ſtation he lived during his abode in Brazil, and the Eaſt Indies, will beſt appear by the two following treatiſes.*

HENR. NIEUHOFF.

VOYAGES AND TRAVELS INTO BRAZ'

IN the year 1640, I entered into the ſervice of the Weſt India com , and on the 24th of October went in the quality of merchant-ſupercargo, abo he ſhip called the Roebuck, of twenty-eight guns and one hundred and thirty mer commanded by Nicholas Selles of Durkendam. We ſet ſail out of the Texel the e day, in company of ſeveral other veſſels bound for France, Spain, and the Stre hts; and purſued our voyage the 28th, with a favourable gale, through the channel twixt France and England.

On the 29th we were overtaken with a moſt violent tempeſt, hich obliged us to take in all our great ſails: it continued from morning to night, n the fury of the winds being ſomewhat allayed, we found that we had eſcaped wit t any conſiderable damage; but the ſea continued very turbulent all that night. Th ext day following, our ſeamen catched a wood-ſnipe, a wild pigeon, and ſeveral otl ſmall birds, which were forced into the ſea by the violence of the ſtorm.

On the 31ſt we found ourſelves under the forty-fifth degre f northern latitude. The next morning, being the firſt of November, ſome of our ſea e catched a ſea-hog, by means of a harpoon: it was ſo big, that four men could ſc lift it into the ſhip. Its taſte was not very agreeable, but rankiſh, which was the r n our men did not catch any more of them, though they ſwam in vaſt number nd about our veſſel. By ſun-ſet, the wind beginning to increaſe, we parted fror e other ſhips bound for Spain and the Streights, which were not ſeparated from us the laſt ſtorm, ſteering our courſe ſouth-weſt. The 2d and 3d it blew very hard, w thunder and lightning, ſo that we were forced to take in all our great ſails, and he ſhip being very leaky ever ſince the laſt tempeſt, to ply the pump with all our mit.

The 4th we found ourſelves under 40° 30′, when, about dnight, the wind increaſed with ſo much violence, that the air which ſurrounded appeared no otherwiſe than one continual fire, occaſioned by the lightning, which ſcar ever ceaſed all that night. During this calamity we perceived certain ſmall fires clights, fixed to the maſt: they are called Peaceable's Fires by the ſeamen. Theſe es are ſuppoſed to be certain ſulphureous vapours, forced by the violence of the wis from the ſhore into the ſea, where, being lightened by the violent agitation of thair, they burn till their oily

* The Voyage to the Eaſt Indies is itted.

ſubſtance

ſubſtance be conſumed. 'The ſeamen look upon them as a good omen, that the ſtorm is going to abate; which proved true in effect, the fury of the winds beginning to allay from that time; and we had the good fortune to diſcover two leaks near our forecaſtle, which elſe might have proved of dangerous conſequence.

The 5th, we paſſed the Barrels, under the thirty-ninth degree; where, according to an ancient cuſtom, every one, of what quality or degree ſoever, that has not paſſed there before, is obliged to be baptiſed, or redeem himſelf from it. He that is to be baptiſed, has a rope tied round his middle, wherewith he is drawn up to the very top of the bowſprit, and from thence three times ſucceſſively tumbled into the water. There were ſome who looked very blank upon the matter, but others went cheerfully about it, and for a meaſure of Spaniſh wine ſuffered themſelves to be rebaptiſed for the maſter and the merchant. But this cuſtom is aboliſhed of late years, by ſpecial orders from the governors of the company, to avoid broils and quarrels, which uſed often to ariſe upon this occaſion.

The 6th, as we were ſteering our courſe ſouth-ſouth-weſt, with a freſh gale, we deſcried two veſſels, making all the ſail they could towards us, whom we ſuppoſed to be Turkiſh pirates (as indeed they proved afterwards); it was reſolved to defend us till the utmoſt extremity. Accordingly orders were given to clear every thing upon the deck, and to furniſh the ſeamen with muſquets, hangers, pikes, and other ſuch like weapons. Every one having taken his ſtation, we put up the bloody flag, and expected their coming under the ſound of our trumpets. The maſter of the ſhip, being all that time very ill of ſome wounds he had received formerly, which were now broken up afreſh; and the commiſſary, Francis Zweers, not being in a condition, by reaſon of his great age, to remain upon deck, I was fain to undertake the whole management of the ſhip, and encouraged them to fight bravely for their lives and liberty, ordering them not to fire at all, till they were in their full reach, they being much better manned than we.

About noon we ſaw the Turks make up towards us, with orange-coloured flags, which however they ſoon after changed for the bloody flags, and the biggeſt of them ſaluted us with two cannon-ſhot out of his forecaſtle, without doing us the leaſt harm, but the ſecond time almoſt ſhot our foremaſt in pieces. In the mean-while we were come ſo near to one another, that we ſent them a good broadſide into their ſhip, which the Turks repaid us immediately; but it was not long before we obſerved the biggeſt of the two had received a ſhot betwixt wind and water, which made her keep at ſome farther diſtance, till ſhe had repaired her damage, which gave me opportunity to encourage our people with words, and a good proportion of wine, which they mixed with ſome gunpowder; and I, to pleaſe them, followed their example.

By this time they returned both to the charge, and ſaluted us ſo fiercely with their cannon and ſmall ſhot, that they took away the roof of our great cabin, and did us ſome damage in our rigging. I then changed my ſcymetar for a muſquet, and diſcharged continually upon the enemy, and I found myſelf ſore ſeveral weeks after, by the hurt I received from a muſquet of one that ſtood hard by me, which being by a cannon-ball forced out of his hands againſt my body, I fell down, ſtretched all along upon the deck, without ſenſe or motion; but having after ſome time recovered myſelf, I returned to my poſt. I then perceived the captain of the biggeſt Turkiſh ſhip with a turbant on his head, in the ſtern, encouraging his men, which made me order thoſe about me to aim at him with their ſmall ſhot, which, as I ſuppoſe, ſucceeded according to our hopes, it being not long before we loſt ſight of him. Notwithſtanding this, the heat of the fight increaſed on both ſides, many broadſides paſſing betwixt us,

accompanied with moſt dreadful outcries and lamentations of the wounded on both ſides. However, the Turks durſt not attempt to board us; whether it were that they thought us better manned than really we were, or that they feared we would ſet fire to the ſhip, which we threatened we would, ſhewing them a match ready for that purpoſe. They anſwered us in Dutch, that they would not part with us upon thoſe terms; yet was it not long before we ſaw them make away from us, having received many ſhots through their ſhips; and we, with a briſk gale, made all the ſail we could to be rid of theſe unwelcome gueſts, ſteering a quite different courſe, which, with the advantage of the darkneſs of the night, brought us quite out of ſight of them by next morning.

We gave thanks to God for his having delivered us from the danger of ſlavery, and crowning our endeavours with ſucceſs againſt an enemy much ſtronger than us, the biggeſt of them carrying twenty-four guns, and the other two; whereas we had no more than eighteen, beſides that they were much better manned than we. After having taken a view of our ſhip, and found it ſound under water, we betook ourſelves to repair the damage we had received during the fight; but whilſt we were buſy in this work, we were on the 7th ſurpriſed by ſo violent a ſtorm, that we were forced to take in all our ſails. This put us to a great nonplus, but by good fortune the ſtorm blew ſoon over, when orders were given to give an allowance of three pounds and a half of biſcuit per week to the ſeamen, all our other bread being become muſty by that time. The 10th we found ourſelves under the thirty-ninth degree and thirty minutes, about twenty leagues off of the Canary Iſlands; here we diſcovered the pike of Teneriff, being two leagues and a half high, and accounted the higheſt mountain in the world. It may be diſcovered at ſixty leagues diſtance from the ſhore. Thus we continued our voyage till the 14th, without any memorable accident, when we paſſed the tropic of Cancer. About noon we were overtaken by another ſtorm, which made us take in moſt of our great ſails, for fear of the worſt, but it laſted not long.

This tract of the ſea is called by the Dutch, the Kroos Sea; by the Portugueſe, Mar del Aragaco (or Largaco, or Sargaco), i. e. the Sea of Ducks-meat, becauſe hereabouts, viz. from the eighteenth to the thirtieth degree, or as ſome will have it, from the twentieth to the twenty-ſecond and twenty-third degree of northern latitude, it is found in great quantity, and carried along with the ſtream: its leaves are of a pale green colour, like that of parrots, ſmall, thin, and carved at the end. It bears berries of the ſame colour, about the bigneſs of a pepper-corn, but are quite hollow, without any ſeed within or taſte. It is ſometimes ſo cloſely twiſted together, that it ſtops a ſhip in its full courſe; though we had the good fortune to paſs through it without much difficulty, being then about four hundred leagues from the coaſt of Afric, where are no iſlands nor anchorage. It may be pickled with ſalt and pepper, and uſed like as we do capers, being accounted a good remedy againſt the gravel. It is generally found without roots, having only a few thin ſprouts, which, as it is ſuppoſed, take root in the ſandy grounds of the ſea; though others are of opinion, that it is carried by the violence of the ſtream from the iſlands into the ſea.

The 18th, one of our ſhip's crew died, who was the next day thrown overboard, at which time I obſerved, what indeed I had heard often before, that the dead carcaſſes always float with their heads to the eaſt at ſea.

The 22d we were overtaken by another tempeſt, called Travado, which with horrible thunder and lightning ſurpriſes the ſhips ſo ſuddenly, that they have ſcarce leiſure to take in their ſails, and ſometimes returns three times in an hour. We catched here abundance of fiſh, ſuch as Bonytes of ten feet long, and Korets, and a great lamprey, which we had enough to do to bring aboard; we only took out the brains, being looked

looked upon as a ſovereign remedy againſt the ſtone in the bladder, the fleſh being of an oily taſte.

The 24th we ſaw great quantities of ſmall birds about our veſſel, and catched one not unlike a crane, but ſomewhat ſmaller, it being a very fair day.

The 26th, being under the fifth degree forty-ſeven minutes, we were ſo becalmed that we could not perceive the ſhip to move, and ſpent our time in catching of fiſh, of which we had ſuch plenty, that we choſe only the beſt for our eating; among the reſt we met with a fiſh called the king's-fiſh: for by reaſon of the impenetrable depth of the ſea in this place, the waters are ſo clear and tranſparent in ſtill weather, that you may ſee the fiſh in vaſt numbers ſwimming near two feet deep; ſo that you need but faſten a crooked nail or any thing elſe like a hook to a ſtring, and hanging it in the ſea, you may catch as many fiſh as you pleaſe. This calm was followed by a moſt violent ſtorm of rain.

The 30th we found ourſelves under the fourth degree forty-one minutes, where we ſaw abundance of flying-fiſh.

The 3d of December we came under the firſt degree thirty minutes, where we met with millions of fiſh, and did catch as many as we thought fit: ſome we put in ſalt, others we rubbed in the belly with pepper and ſalt, and hung them up by the tail in the ſun.

The 4th, by break of day, being very clear weather, we ſaw the iſland of St. Paulo, as it is called by the Portugueſe, which at a diſtance repreſents a ſail, which as you approach nearer to it, proves five high rocks. About noon we found ourſelves at fifty-three minutes of northern latitude, taking our courſe five leagues to the weſt. Here at ſeveral times we catched ſome ſea-gulls; thoſe birds make a ſhew as if they would bite you, but remain immoveable in the place, till they are caught or killed.

The 5th, about eleven o'clock we paſſed the æquinoctial line, ſo that in the afternoon we found ourſelves at five minutes ſouthern latitude, where we had but little reaſon to complain of cold; it being often ſo calm here, that ſhips are forced to ſpend a conſiderable time in paſſing this tract. It is extremely hot here, and great ſcarcity of good and ſweet water, the rain-water being not wholeſome, but cauſing the ſcurvy, by reaſon of its being corrupted by the violent heat of the ſun.

About three years after my arrival in Brazil, a certain Portugueſe ſhip was found adrift under the equinoctial line, without any living creature in it, which, according to the journal, had been ſix whole weeks under the line. We had a very good paſſage, and catched abundance of fiſh, and among the reſt a certain fiſh called the blower, which ſwallow a conſiderable quantity of water in their guts, and then at once ſpout it forth again. They will follow the ſhips for a long time.

The 8th we paſſed by the iſle called Ilha Ferdinando of Neronha; it being very ſerene weather, we ſaw vaſt numbers of birds, and whole ſhoals of flying fiſh, which were followed by the Bonytes and Korets.

The iſland of Ferdinando of Neronha, ſituated under the fourth degree of ſouthern latitude, about fifty leagues from the coaſt of Brazil, was about the year 1630 inhabited by the Dutch, but by reaſon of the vaſt number of rats, which conſumed all the fruits of the earth, deſerted by them a few years after; it being otherwiſe a very fruitful iſland, and abounding with fiſh, the inhabitants of Receif being uſed to ſend their fiſher-boats thither, which return commonly well freighted with fiſh. The council of Brazil did afterwards ſend a certain number of negroes thither, under the conduct of one Gellis Vepant, to cultivate the ground for their ſubſiſtence, who likewiſe ſtayed there for ſome time. About a-year and a half after, the council of juſtice baniſhed

ſeveral

ſeveral malefactors into that iſland, who, being furniſhed with neceſſary inſtruments for cultivating the ground, were forced to ſeek for their ſuſtenance there.

The 11th at night we found ourſelves under the ſeventh degree, over againſt the province of Goyana, about twenty leagues on this ſide of Olinda; with break of day we ſaw the ſhore of Brazil, but kept out at ſea till it was broad day.

The 12th it was very foggy, and we kept our courſe with fair wind and water all along the coaſt, and arrived before noon ſafely near the Receif, where we caſt our anchor at ſeveral fathoms depth, after we had ſpent ſeven weeks and one day in the voyage.

After we had returned our thanks to God for his deliverance from the dangers of the ſea, and ſlavery of the Turks, I went aſhore the ſame night with the maſter and commiſſary in a boat, to notify our happy arrival, and to deliver a letter to Count Maurice, and the governor of the council. I continued aſhore that night, but returned aboard the next day. And,

The 15th the pilots conducted our veſſel into the harbour of the Receif, where we found twenty-eight veſſels and two yachts lying behind the Water Caſtel.

Towards the latter end of Auguſt 1643, I received orders from the council to ſail with the yacht called the Sea Hog, loaden with fullers-earth, to the iſle of St. Thomas, to exchange it for black ſugar, this being the chief commodity tranſported from thence. My voyage proved fortunate enough, not meeting with any ſiniſter accident, except with a violent tempeſt of thunder, lightning, and rains, and came the 9th of September at an anchor there; the cargo did bear no good price, yet after a ſtay of fourteen days, I returned with a cargo of black ſugar to Brazil, where I arrived the 3d of October before the Receif, after a voyage of near three months.

The iſle of St. Thomas is of a circular figure, about thirty-ſix leagues in compaſs; the high mountains in the midſt of that iſland are always covered with ſnow, notwithſtanding that in the low grounds, by reaſon of its ſituation under the line, it is exceſſive hot. It is very fertile in black ſugar and ginger; the ſugar-fields being continually moiſtened by the melted ſnow that falls down from the mountains. There were at that time above ſixty ſugar-mills there; but the air is the moſt unwholeſome in the world, no foreigner daring to ſtay ſo much as one night aſhore, without running the hazard of his life; becauſe by the heat of the ſun-beams ſuch venomous vapours are drawn from the earth, as are unſupportable to ſtrangers. This fog continues till about ten o'clock in the morning, when the ſame is diſperſed, and the air cleared, which made us always ſtay abroad till after that time. This miſt is not obſerved at ſea.

The air here is very hot and moiſt throughout the year, except in the ſummer about June, when the ſouth-eaſt and ſouth-weſt winds abate much of the heat of the climate. The vapours drawn up by the ſun, occaſion certain epidemical intermittent fevers, which carry off the patient in a few days, with exceſſive pains in the head, and violent torments in the bowels; though ſome attribute it to the immoderate uſe of women, and of the juice of cocoas. Certain it is, that among a hundred foreigners, ſcarce ten eſcape with life, and thoſe ſeldom live till fifty years of age; though ſome of the inhabitants, as likewiſe the negroes (who are all louſy here), live to a great age. Its firſt inhabitants were Jews, baniſhed out of Portugal; they are of a very odd complexion. Among the mountains dwell abundance of negroes, who are run away from the Portugueſe, and make ſometimes excurſions to the very gates of the city of Pavaoſa. It is almoſt next to a miracle, that any people ſhould inhabit ſo unwholeſome a climate; but that the hopes of lucre makes all danger eaſy.

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The city of Pavaoſa, belonging to this iſland, is ſituate upon a rivulet; it contains about eight hundred houſes, and three churches. This city, as well as the whole iſland, was, October 16, 1641, conquered by the Admiral Cornelius Tôl, after a ſiege of forty days, without any conſiderable loſs; but both he and his lieutenant, as well as ſeveral other commanders and many ſeamen, were ſwept away by this peſtilential air; and of three hundred Brazilians, not above ſixty eſcaped with life.

But before I proceed to give you an account of all the remarkable paſſages that happened in Brazil ſince the revolt of the Portugueſe, and during my ſtay of eight years there; it will not be amiſs to give a ſhort deſcription of this country.

A Deſcription of Brazil.

AMERICA, (or the Weſt Indies,) is divided into the Northern and Southern America. Brazil is part of the laſt.

The Northern America borders to the north upon the Terra Incognita, or rather upon Hudſon's Streights; to the ſouth and weſt upon the South Sea, and to the eaſt upon the ſtreights of Panama, the bay of Mexico or Nieu Spain, and the North Sea.

It comprehends the following provinces:

Eſtotiland and Labrador, New France, Canada, Bakaloos, New England, Virginia, Florida, New Spain, the provinces of Mexico, New Mexico, Tlaſkalla, Guaxaka, Mechoakana, Zakatula, Kolim, Yukatan, Tabaſko, New Gallicia, New Biſcay, Chiametla, Kuliaka, Cimalon, New Granada, California, Anian, Quivira or New Albion, Conibas, Guatemala, Sokonuſko, Chiapa, Vera-pas, Honduras, Nikaragua, Coſtarika, and Veragua.

The Southern America is a demi-iſland in form of a pyramid, the baſis of which lies to the north; the point extends to the Streights of Magellan, under the fifty-third degree of ſouthern latitude, bordering to the eaſt upon the Atlantic ocean, or North Sea, and to the weſt upon the South Sea; its whole circuit being of about four thouſand Italian, or one thouſand German, miles. It contains the provinces of Caſtilla d'Or, Tierra Ferma (called by the Portugueſe, Paria), Cumana, Caribana, Brazil, Chika to the eaſt, to the weſt Popayan, Peru, Chili, beſides ſeveral inland provinces.

Brazil was firſt diſcovered by Pedro Alvaro Capralis, a Portugueſe, ſome time before Americus Veſputius, viz. the year 1500. He gave it in the name of Santa Cruz, which was afterwards by the Portugueſe changed into that of Brazil, from the wood of the ſame name, which is found there in great quantity, and from thence tranſported into all parts of Europe, for the uſe of the dyers.

It is ſituate in the midſt of the torrid zone, extending to the tropic of Cancer and the temperate zone.

Concerning its extent from north to ſouth, there is no ſmall difference among the geographers; but, according to the beſt computations, its beginning may be fixed under the ſecond degree and a half of northern latitude, near the river Pata, and its end under the twenty-fourth degree and a half of ſouthern latitude, to the river Capibari, two leagues above the city of St. Vincent; ſo that its whole extent from north to ſouth comprehends twenty-five degrees, or three hundred and ſeventy-five leagues; ſome place Brazil betwixt the river of Maranhaon and Rio de la Plata. The extent of Brazil from the eaſt, where it borders upon the North Sea, to the weſt, is not determined hitherto, there being very few who have penetrated ſo deep into the country, though its bigneſs from eaſt to weſt may be computed to be ſeven hundred and forty-two leagues; there

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are ſome, however, who extends its limits farther to the eaſt, and to the weſt as far as Peru or Guiana, which makes an addition of one hundred and eighty-eight leagues. Some make the boundaries of Brazil to the north the river of the Amazons, to the ſouth Rio de la Plata, to the eaſt the North Sea, and to the weſt the mountains of Peru or Guiana.

Brazil, thus limited, is divided by the Portugueſe into fourteen diſtricts, called by them kapitania, or captainſhips; viz. Paria, the firſt of all towards the north; Maranhaon, Siara, Potigi or Rio Grande, Paraiba, Parnambuko, Tamarika or Itamarika, Seregippe del Rey, Quirimune or Bahia dos todos los Santos, Nhoe-Kombe or Os Ilhos, Pakata or Porto Securo, Rio de Janeiro or Nheteroya, St. Vincent, and Eſpiritu Santo.

Whilſt part of Brazil was in our poſſeſſion, it might conveniently be divided into the Dutch and Portugueſe Brazil. Each of theſe captainſhips is watered by ſome conſiderable river or other, beſides ſeveral others of leſs note; moſt of theſe have very rapid currents in the rainy months, and overflow the adjacent country.

The river of St. Francis, the largeſt and moſt conſiderable in thoſe parts, is the common boundary of the captainſhip of Parnambuko and Bahia dos todos los Santos, or the Bay of All Saints. In ſome places it is ſo broad that a ſix-pounder can ſcarce reach over it, and its depth is eight, twelve, and ſometimes fifteen yards; but it admits of no ſhips of burthen, becauſe its entrance is choked up with ſands.

Its firſt ſpring is ſaid to ariſe out of a certain lake, which being augmented by many rivulets out of the mountains of Peru, but eſpecially by the rivers of Rio de la Plata and Maranhaon, exonerates itſelf into the ſea. Some of our people went in a ſhallop near forty leagues up the river, and found it of a good depth and pretty broad. If we may believe the Portugueſe, there are about fifty leagues from the ſea, certain impaſſable cataracts or water-falls, called by them Kakocras; beyond thoſe the river winds to the north, till you come to its ſource in the lake, in which are many pleaſant iſlands, inhabited by the barbarians; as is likewiſe the ſhore round about it. They find good ſtore of gold-duſt in this lake, but it is none of the beſt, being carried thither by the many rivulets which waſh the gold-bearing rocks of Peru: here is alſo moſt excellent ſalt-petre.

It is obſervable, that in the ſummer, and thoſe winter months when it rains but ſeldom, this river has more water than in the rainy ſeaſon: the reaſon alleged for it is, the vaſt diſtance from its firſt ſource, whither the rains that fall from the mountains muſt firſt be conveyed by many rivulets. All the other rivers near the Receif are ſo empty of water during the ſummer ſeaſon, that they are rendered quite unnavigable. But the ridges of mountains, which lie not far from the ſea-ſhore, exonerate their waters, as well here as in Peru, backward to the weſt, and dividing themſelves into two branches; the firſt runs to the north, and joins with the moſt large and rapid rivers of Maranhaon and of the Amazons; the other with the rivers of St. Francis de la Plata and Janeiro. The waters of theſe rivers being conſiderably increaſed by many rivulets, they exonerate themſelves with ſo much violence into the ſea, that the ſeamen meet often with freſh water at a conſiderable diſtance at ſea.

The increaſe of the waters in this river, during the dry ſeaſon, may likewiſe be attributed to the vaſt quantity of ſnow among the mountains, which being melted by the heat of the ſun, occaſions the river to tranſgreſs its ordinary bounds; which in this point is quite different from other rivers, which commonly in the winter-time overflow their banks.

Six of thoſe captainſhips were under the juriſdiction of the Weſt India company, before the Portugueſe revolted from the Dutch, which they had conquered with their ſwords,

Drawn by W. Alexander. Engraved by George Cooke.

City of St. Sebastian Rio de Janeiro.

(Decr. 1792.)

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The Aqueduct at Rio de Janeiro

ſwords, viz. the captainſhip (it being on the ſouth ſide) Seregippe del Rey of Parnambuko, Itamarika, unto which belongs Gauiana, Paraiba, Potigi or Rio Grande, and Siara or Ciara. The captainſhip of Maranhaon was 1644, by ſpecial command of the company, left by the Dutch. This part of Brazil uſed to be called by the Portugueſe the Northern Brazil, as the other remaining in their poſſeſſion went by the name of South Brazil.

The ſix Dutch captainſhips did extend all along the ſea-coaſt from north to ſouth, in length about a hundred and ſixty or a hundred and eighty leagues; for from Rio Grande to the northern border of Seregippe del Rey, is a hundred leagues: the two others, viz. that of Siara to the north, and Seregippe del Rey to the ſouth, make up the reſt. Each of theſe captainſhips contain ſeveral other leſſer diſtricts, called by the Portugueſe Fregeſias, and by us Fregeſien: as for inſtance, in Seregippe del Rey, are Pojuka, Kameragibi, Porto Calvo, Serinhaim, and ſeveral others. Fregaſie comprehends a certain tract of ground, compoſed of divers villages, rivers, hills, and valleys, betwixt each of which is commonly a tract of barren hills, of about three or four leagues in length. Moſt of the Dutch captainſhips are but indifferently cultivated, becauſe the Portugueſe uſed not to manure the ground in thoſe parts beyond three or four, or, at fartheſt, five leagues diſtance from the ſea,

The captainſhip of Seregippe del Rey is likewiſe called Carigi, from a certain ſmall lake of that name; it is ſituate in the ſouthern part of Brazil, extending about thirty-two leagues along the ſea-coaſt, bordering on the north ſide, upon the river of St. Francis, by which it is divided from Parnambuko, as on the ſouth ſide it is ſeparated by Rio Real from Bahia dos todos los Santos. Seregippe del Rey has, among others, a certain Fregaſie called Porto Calvo, ſituated betwixt the ninth and tenth degree of ſouthern latitude; being encompaſſed on the north-weſt ſide by the Fregaſie of Serinhaim, and the ſmall river of Piraſenunga, extending to the ſouth as far as the river Parepuera, by which it is divided from the Fregaſie of Alagoaſi, containing in all about twelve leagues in length near the ſea-ſhore, its bounds on the land ſide reaching to the unpaſſable woods.

In this Fregaſie is a village, called by the Portugueſe Villa de bon ſucceſſo de Porto-Calvo, but was formerly called Portocano Dos quatros Rios, it being ſituate at the confluence of the four rivers, Maleita, Tapamunde, Commentabunda and Monguaba. It is built upon a riſing ground, about four leagues from the ſea-ſhore, and by the Dutch ſtrengthened with two forts; the biggeſt of which was called Bon Succeſſo, being built all of ſtone, ſurrounded with a good counterſcarp, with a large baſon of freſh water within. The other fort was called by us the New Church, being created out of the ruins of an old church, called by the Portugueſe Noſſa Senhora de Preſentacao. Betwixt both theſe forts, a third was ordered to be erected by Count Maurice, upon the banks of the river, but it lying within the reach of muſket-ſhot from the mountains, was not brought to perfection.

The village has two ſtreets, the chief of which runs parallel with the river, from one fort to the other, and is called St. Joſeph's ſtreet; it contained no more than three houſes of one ſtory high, and about thirty-ſix others covered with pantiles, being only built upon the ground. The Portugueſe have, in lieu of their churches, which were demoliſhed when the fortifications were erected, built themſelves another on the other ſide of the river, where they ſometimes hear maſs. The village is ſituate in a moſt pleaſant and wholeſome air, being cooled by the continual breezes from the ſea, which are not ſtopped by any hills betwixt them and the ſhore. In the night-time they enjoy the benefit of the land-wind, which drives the cool vapours ariſing from the neighbouring

ing rivers thither. Formerly there was a certain town called Seregippe del Rey, ſomewhat higher up the river, in a very barren place, of a conſiderable bigneſs, and well built, with three goodly churches, and a monaſtery belonging to the Franciſcans, but without any fortifications. Above this town you ſee a chapel dedicated to St. Chriſtopher, whither the Roman catholics come on pilgrimage.

This captainſhip was firſt of all reduced under the obedience of the Portugueſe, or Spaniards, by Chriſtovan de Barros; who for this his good ſervice, had all the lands betwixt the ſmall lake of Seregippe and St. Franciſco granted to him, with full power to ſettle colonies there within a limited time. This drew many of the inhabitants to the Bay of All Saints thither, who, within a few years after, laid the foundation of this town, by erecting four ſugar-mills, and building about a hundred houſes, with four hundred ſtables for their cattle. But this town, with all the circumjacent houſes, was, 1637, the 24th of December, laid deſolate by our people, the inhabitants retiring to the Bay of All Saints. For the Spaniſh general Benjola being, 1637, poſted with a body of two thouſand men near that place, did, with ravaging and burning, conſiderable damage to our colonies, which obliged Count Maurice to diſlodge him from thence; but being then ſick of an ague, he committed this expedition to the charge of Colonel Schoppe; for which purpoſe, having gathered a body of two thouſand three hundred men, beſides four hundred Brazilians, and two hundred and fifty ſeamen out of the adjacent places, near the river of St. Francis, Alagoas, the cape of St. Auſtin, out of the Receif and Moribeka, and given him for his aſſiſtant Mr. John Van Gieſſelen, a member of the great council, he commanded the Dutch admiral Lichthart to cruiſe with his fleet near the Bay of All Saints, thereby to draw the enemy out of his advantageous poſt to the ſea-ſhore. The Spaniſh general had no ſooner notice of our paſſing the river, but fearing to be incloſed betwixt us and the fleet, marched with his body to Torre Garcie de Avila, a place about fourteen leagues to the north of the city of St. Salvador.

The Dutch general Schoppe hearing of his removal, immediately attacked the place, which he laid deſolate, and returned with incredible ſwiftneſs to the ſouth ſide of the river of St. Francis.

Here he intrenched himſelf, with an intention to annoy the enemy, by cutting off his proviſions, and driving away his cattle; which ſucceeded ſo well, that we killed above three thouſand of their horned beaſts, beſides what was carried away on the other ſide of the river; ſo that what was left by the ſoldiers, was by the inhabitants carried to the Bay of All Saints; from whence it is evident, what vaſt numbers of cattle this country did produce at that time.

The great council took once a reſolution to re-people that part of the country, and agreed, for this purpoſe, with Nunno Olferdi, counſellor of juſtice in the Receif, who found means to ſettle ſeveral families there: but the council of nineteen diſapproving the matter, it was laid aſide.

In the year 1641, Count Maurice reduced this place under the obedience of the Weſt India company, erected a fort there, and ſurrounded the town Seregippe del Rey with a ditch. It lies upon a ſmall river, betwixt St. Franciſco and Real; which, however, at ſpring-tide, has fourteen foot water, or thereabouts. Within the juriſdiction of this captainſhip is the mountain of Tabayna; from whence ſeveral ſorts of valuable ore were preſented to the council of nineteen; but, upon proof, were found not worth farther looking after.

The

The Captainſhip of Parnambuko.

THE captainſhip of Parnambuko is one of the chiefeſt and biggeſt of the Dutch Brazil. It extends above ſixty leagues along the coaſt, betwixt the river of St. Francis and the captainſhip of Tamarika. Parnambuko properly denotes the entrance of the harbour, which, by reaſon of the many rocks and ſhelves hidden under water, was called, by the Portugueſe, Inferno Bokko, and Broken Parnambuko, or the Mouth of Hell. It is ſubdivided into eleven leſſer diſtricts, inhabited by the Portugueſe, viz. the city of Olinda, Garazu, Receif, Moribeka, St. Anthony, Poyuka, Serinhaim, Gonſalvi d'Una, Porto Calvo, the Northern Alagoa, and the Southern Alagoa. Among which Olinda and Garazu were the chiefeſt.

The town, or rather the village, of Garazu, lies at ſome diſtance from the ſhore, over-againſt the iſland of Tamarika, upon a river of the ſame name, about five leagues from Olinda. It was formerly inhabited by Portugueſe handicrafts-men, but, ſince our taking of Olinda, ſeveral rich families ſettled there: we became maſters of the place 1633, in May.

Moribeka lies deeper in the country, more to the ſouth, about five leagues off of the Receif.

St. Anthony is about ſeven or eight leagues diſtant from the Receif, to the ſouth, near the cape of St. Auſtin.

The city of St. Michael de Poyuka lies about ten leagues to the ſouth of the Receif, upon a river of the ſame name, which diſembogues in the ſea, on the ſouth ſide of the cape of St. Auſtin. It was formerly a very populous place, and had thirteen ſugar-mills.

The village Serinhaim, much about the ſame diſtance thence with the former, is a very pleaſant place, has twelve ſugar-mills, each of which produces ſix or ſeven thouſand arobas, an aroba making about twenty-ſeven or twenty-eight pound weight.

The village of Gonſalvi d'Una lies twenty leagues from the Receif; it has five ſugar-mills.

The village called Porto Calvo is twenty-five leagues diſtant from the Receif; it has ſeven or eight ſugar-mills. Here is the caſtle of Porocano, which was not conquered by us, till under the government of Count Maurice.

The towns of the Northern and Southern Alagoas are forty leagues from the Receif.

Within the diſtrict of Parnambuko are two woods, called by the Portugueſe the Greater and Leſſer Palmairas, or Palmtree-woods.

The Leſſer Palmairas, which is inhabited by ſix thouſand negroes, lies about twenty leagues above the Alagoas, being incloſed with woods near the ſmall lake of Guagohuhi, which exonerates itſelf into the great lake of Parayba, ſix leagues from thence to the north, about four leagues from the lake Meridai, to the ſouth of the Northern Alagoa, being near that point of land commonly called Jaragoa. The village conſiſts of three ſtreets, each near half a league in length. Their huts are made of ſtraw twiſted together, one near another, their plantations being behind. They retain ſomething of the religious worſhip of the Portugueſe, but have their peculiar prieſts and judges. Their buſineſs is to rob the Portugueſe of their ſlaves, who remain in ſlavery among them till they have redeemed themſelves by ſtealing another: but ſuch ſlaves as run over to them are as free as the reſt. Their food is dates, beans, meal, barley, ſugar-canes, tame-fowl (of which they have great plenty), and fiſh, which the lake furniſhes them withal.

withal. They have twice a year a harveſt of barley, which being over, they make merry for a whole week together. Before ſowing time, they light great fires for fourteen days, which may be ſeen at a great diſtance. The ſhorteſt way from the Receif to this Palmairas is along the lake of the Northern Alagoa.

The greater Palmairas is betwixt twenty and thirty leagues diſtant behind the village of St. Amar, near the mountain of Behe, being ſurrounded with a double incloſure. About eight thouſand negroes are ſaid to inhabit the valleys near the mountains, beſides many others, who dwell in leſſer numbers of fifty or a hundred, in other places. Their houſes lie ſtraggling, they ſow and reap among the woods, and have certain caves whither they retreat in caſe of neceſſity. They dreſs their victuals in the day-time, and at night tell over their whole number, to ſee whether any be wanting; if not, they conclude the evening with dancing and beating the drum, which may be heard at a great diſtance. Then they go to ſleep till nine or ten o'clock the next day. During the dry ſeaſon, they detach a certain number among them, to ſteal ſlaves from the Portugueſe. The ſhorteſt cut to their habitations is from the Alagoas through St. Amar, and ſo croſs the plains of Nhumahu and Kororipe, towards the backſide of the mountain of Warrakaka, till you come to the lake Paraiba; along which you muſt paſs, till you reach the mountain Behe, from whence you go directly into the valleys. Under the government of Count Maurice, the negroes of this Palmairas did conſiderable miſchief, eſpecially to the country-people about the Alagoas; to repreſs which, he ſent three hundred firelocks, one hundred Mamelukes, and ſeven hundred Brazilians.

The Receif, Maurice's Town, and Anthony Vaez.

The Receif is, by reaſon of its commodious and advantageous ſituation, the ſtrongeſt place of all Brazil; beſides that, it is ſtrengthened and defended by ſeveral adjacent forts: but to give you the moſt commodious view both of the Receif, and the ſituation of Maurice's town, it is to be obſerved, that the whole coaſt of Brazil is, from one end to the other, ſurrounded with a long, thick, and flat ridge of rocks, which in ſome places is twenty, and in others thirty paces broad: however, there are certain paſſages in this ridge, through which the ſhips approach the ſhore, and ſome few places, where this ridge is not to be found at all. Thus a league on this ſide Rio Dolee, two leagues on the north ſide of the city of Olinda, there is nothing of this ridge to be found; but begins again near Poumarelle or Soxamardo, and extends to the iſle of Itamarika. Betwixt the ridge and the continent you may paſs in boats at high water; for at low tide moſt of thoſe rocks appear above water; though the tide never fails to cover the ſame. The rock over-againſt the Receif of Parnambuko is between twenty and thirty paces broad, being not only at ſpring tides, but at all other tides overflown by the ſea; it is thereabouts very flat, without any prominences, and extends for a league from ſouth to north. On the north point is an open paſſage for ſhips to approach the ſhore, lying five hundred paces farther to the north than the Receif itſelf. It is but narrow, and at ſpring-tide not above twenty-two feet deep.

Betwixt this rocky ridge and the continent there is a ſandy ridge, or ſmall iſland, extending to the ſouth from Olinda, a league in length, and about two hundred paces broad. This is by our people commonly called The Sandy Receif, to diſtinguiſh it from The [illegible] Receif.

On the ſouthern point of this little iſland, a league off Olinda, the Portugueſe had built a village called Povoacano, which ſignifies peopling, or elſe Reciffo; it was very

populous

populous for a conſiderable time, till the building of Maurice's Town, in the iſland of Anthony Vaez. For after Olinda was forſaken by its inhabitants, and deſtroyed by us, many of them, but eſpecially the merchants, ſettled in this Reciffo, or the village of Povoacano, where they erected magnificent ſtructures. At our firſt arrival we found no more than two hundred houſes there, which were afterwards increaſed to above two thouſand, ſome of which are very goodly edifices. We ſurrounded it with palliſadoes on the ſide of the river Biberibi, which at low water is fordable; and for its better ſecurity fortified it with three bulwarks, one towards Olinda, the other to the harbour, and the third towards the Salt-River; upon each of which was raiſed a good battery with three great cannon. This Receif is ſituate under 8° 20′ ſouthern latitude.

Some derive the word Reciffo from the Latin, *recipere* and *receptus* to receive, which after was turned into Reciffo, becauſe the ſhips uſed to be received betwixt the Stony and Sandy Receifs, to load and unload their goods. Before the building of Maurice's Town, we kept here our factories, and all buſineſs both of peace and war was tranſacted in this place. In the time of the Portugueſe, all the ſhips cõming out of the ſea did unload on the village of Povoacano, or the Receif, and the goods were from thence in boats and lighters conveyed up the river Biberibi, to the ſuburbs of Olinda.

Before the building of Maurice's Town, moſt of the traffic was in the Receif, where all the great merchants had their habitations, and from hence the ſugar was tranſported into Holland. To prevent the frauds in the cuſtoms, it was ſurrounded with palliſadoes, and a goodly hoſpital was erected for the conveniency of the ſick and wounded, and the education of orphans, under the tuition of four governors, and as many governeſſes.

Upon the uttermoſt point of the Stony Receif, on the left ſide, as you enter the harbour out of the ſea, is a ſtrong and large caſtle, built of free-ſtone, ſurrounded with a very high wall, upon which are mounted many heavy cannon, with ſuitable artillery and other proviſions. When we took the place, we found nine braſs, and twenty-two iron pieces of cannon within it; ſo that it ſeems both by art and nature impregnable; there being no coming near it on foot, at high water.

About five leagues higher, upon a branch of the great river, lies a ſmall town of little conſequence, called by our people The New City; and upon another branch of the ſame river, oppoſite to the former, a village called Atapuepe.

The Iſland of Anthony Vaez, and Maurice's Town.

TO the ſouth of the Receif, oppoſite to it, lies the iſle of Anthony Vaez, ſo called by our people, from its ancient poſſeſſor. It is about half a league in circuit, being divided from the Receif by the Salt-River, or Biberibi.

On the eaſt ſide of this iſland, Count Maurice laid the foundation of a city, which, after his own name, he called Maurice's Town or city; the ruins of the churches or monaſteries of the city of Olinda furniſhed the materials for the building of it, which were from thence carried to the Receif, and ſo tranſported to this place.

On the weſt ſide it is environed with a moraſs; and on the eaſt ſide waſhed by the ſea, which paſſes the ſtony ridge. Beſides which, it is on the land ſide ſtrengthened with an earthern wall, four bulwarks and a large moat.

On that ſide where the fort of Erneſtus was, the town lay open, and the houſes took up a larger compaſs than thoſe in the Receif; but after the revolt of the Portugueſe, moſt of thoſe houſes were pulled down, and the place drawn into a more narrow compaſs,

paſs, to render it more defenſible: yet was the place well ſtocked with inhabitants, as well merchants as handicrafts-men.

Maurice's Town was on each ſide guarded by a fort. On the ſouth ſide by the fort called Frederick-Henry, or the quinquangular fort, from its five bulwarks. This fort was, beſides this, ſurrounded by a large ditch and palliſadoes, and ſtrengthened by two horn-works, ſo that it commanded the whole plain, which at ſpring-tides uſed to be overflown by the ſea.

The ſecond fort Erneſtus, thus called after John Erneſt, the brother of Count Maurice, was four-ſquare, with four bulwarks, with a very large ditch; it commanded the river, the plains, and Maurice's Town. Near this laſt fort was the garden of Count Maurice, ſtored with all ſorts of trees, brought thither from Europe and both the Indies.

Upon the north point of the Stony Receif juſt over againſt the Sandy Receif, lies the before-named fort, built all of ſtone, being about a hundred paces in circumference, provided with a good garriſon and twenty pieces of great cannon, though in ſtormy weather the water flies over it on all ſides. It commands the harbour, the land-fort, the Bruin Fort, and the Receif.

As the iſle of Anthony Vaez was joined to the continent by a bridge, ſo it was thought neceſſary to join the Receif with another bridge to the ſaid iſland, for the conveniency of carriage; the ſugar-cheſts being before that time never to be tranſported to the Receif, except at low water, unleſs the owners would run the hazard of expoſing them to the danger of the ſea in ſmall boats. Accordingly the great council, with conſent of the governor Count Maurice, agreed with a certain architect for the building of a bridge with ſtone arches, for the ſum of two hundred and fifty thouſand florins. But after the architect had conſumed a prodigious quantity of ſtone, and raiſed the ſtructure near to the height of the banks of the river, finding that at low-water there was ſtill eleven foot water, and deſpairing to be able to accompliſh it, left it unfiniſhed. But the council being unwilling to deſiſt, renewed the work, which had already coſt a hundred thouſand florins; and by means of many trees of forty and fifty foot long, ſtopped the current till the bridge was brought to perfection, which was done in two months time, and a certain toll impoſed upon all paſſengers, viz. for an inhabitant two-pence, for a ſoldier and negro one penny, for a horſe four-pence, and a waggon drawn by oxen ſeven-pence.

The ſpace betwixt the Sandy and Stony Receif is properly the harbour, which at high water has about thirteen or fourteen foot depth, where the ſhips ride very ſafe, being defended from the ſea by the Stony Receif. The paſſage betwixt the Sandy Receif and the continent is called the Salt-River, to diſtinguiſh it from the river Kapivaribi, which carries ſweet water.

The river Kapivaribi has derived its name from a certain kind of river or ſea hogs, which uſed to be found there, and were by the Brazilians called Kapivaribi. This river ariſes ſome leagues to the weſt, paſſing by the Matta, or the Wood of Brazil, Maſyaſti, St. Lorenzo, and Real, where, joining with the river Affogados, near another river of the ſame name, diſembogues in the ſea, near the Receif. The river Kapivaribi divides itſelf into two branches; one turns to the ſouth, and paſſes by the fort William, and is called Affogados; the other running to the north, retains its former name, continuing its courſe betwixt the continent and Maurice's Town, or the iſle of Anthony Vaez (into which you may paſs over it by a bridge), and ſo to Waerdenburgh, where it joins with the river Biberibi, or Salt-River, both which are afterwards mixed with the ſea. The two branches of this river ſurround the river Biberibi on the weſt ſide, and to the

eaſt the iſle of Anthony Vaez. Upon that branch of the river called Affogados, are abundance of ſugar-mills, from whence the Portugueſe uſed to convey their ſugar-cheſts, either in boats by the way of the river, or in carts to Baretta, and from thence in flat-bottomed boats to the Receif and to Olinda.

A league to the ſouth of Maurice's Town, upon the branch called Affogados, is a four-ſquare fort of the ſame name, otherwiſe called Fort William; and from whence you may paſs along a dike to the fort Frederick-Henry, or Maurice's Town. It was a noble ſtructure, ſurrounded with high and ſtrong walls, a large ditch and palliſadoes, with ſix braſs cannon; it defended the avenues to the plains.

About half a league from thence, and at the ſame diſtance from the continent, lies another fort on the ſea-ſhore, called Baretta; this commands the avenues both by ſea and land to the cape of St. Auſtin and the Receif.

Upon that part of the iſland which lies betwixt the rivers Kapivaribi and Biberibi, and betwixt the forts of Erneſtus and the triangular fort of Waerdenburg, were the before-mentioned gardens of Count Maurice, ſtored with all kinds of trees, fruits, flowers and greens, which either Europe, Africk, or both the Indies could afford. There were near ſeven hundred cocoa-trees of all ſizes, ſome of which were thirty, forty, and fifty feet high; which being tranſplanted thither, out of the circumjacent countries, bore abundance of fruit the very firſt year; above fifty lemon-trees, and eighteen citron-trees, eighty pomegranate-trees, and ſixty-ſix fig-trees, were alſo to be ſeen in theſe gardens.

In the midſt of it ſtood the ſeat itſelf, called Vryburg, a noble ſtructure indeed, which, as is reported, coſt ſix hundred thouſand florins; it had a moſt admirable proſpect, both to the ſea and land ſide, and its two towers were of ſuch a height, that they might be ſeen ſix or ſeven leagues off at ſea, and ſerved the ſeamen for a beacon. In the front of the houſe was a battery of marble, riſing by degrees from the river ſide, upon which were mounted ten pieces of cannon for the defence of the river. About two or three rods from the river, were ſeveral large baſons in the garden, containing very ſweet water, notwithſtanding the river all round about afforded nothing but ſalt-water; beſides this, there were divers fiſh-ponds, ſtocked with all ſorts of fiſh.

At the very foot of the bridge which is built over the river Kapivaribi, from Maurice's Town to the continent, Count Maurice had built a very pleaſant ſummer ſeat, called by the Portugueſe, Baaviſta, i. e. a fair proſpect. It was not only ſurrounded with very pleaſant gardens and fiſh-ponds, but ſerved likewiſe as a fort for the defence of the iſle of Anthony Vaez and Maurice's Town.

Upon the Sandy Receif, oppoſite to the ſea, or Water Fort, was a ſtrong fort built of ſtone, called by the Portugueſe, St. Toris, our people uſed to call it the Land Fort, to diſtinguiſh it from the before-mentioned Water Fort; it defends the entrance of the harbour with thirteen iron pieces of cannon.

About a muſket-ſhot thence to the north, lies upon the ſame Sandy Receif, a ſmall fort with four baſtions, called the fort of Bruin; and about a muſket-ſhot farther to the north, a redoubt, called Madame de Bruin; both theſe forts were built by the Dutch.

Near the continent, nor far from the ſalt-pits, betwixt the Sandy Receif and the iſle of Anthony Vaez, was a triangular fort called Waerdenburg. It was at firſt a four-ſquare, but afterwards turned by the Dutch into a triangular fort, the fourth bulwark being not defenſible, by reaſon of the ground. Theſe three bulwarks were afterwards changed into as many redoubts, and provided with ſome braſs guns; at high tide it is ſurrounded on all ſides with water.

The

The City of Olinda.

AT a ſmall diſtance from the Receif, or Maurice's Town, to the north, is the ruinated city of Olinda, once a famous place among the Portugueſe; the whole product of Brazil being from thence tranſported by ſea into Europe. The beſt part of the city was built upon divers hills; towards the ſea on the ſouth ſide, theſe hills were pretty plain, extending to the ſea-ſhore, which has a very white ſand all along that coaſt; towards the land ſide, or the north, thoſe hills are more ſteep and craggy, full of thorn-buſhes, intermixed with a few orange-trees. Theſe hills are an additional ſtrength to the place, which beſides this, was guarded by ſeveral baſtions to the land ſide, though by reaſon of the great variety of hills contained in its circuit, it was a difficult taſk to bring the fortifications into a regular form. There is a very fair proſpect from the higher part of the town, both to the ſouth and north, or to the ſea and land ſide, by reaſon of the great quantity of circumjacent trees, which continue green all the year round. You may alſo from thence ſee the iſle of Anthony Vaez, and Maurice's Town. The point of land near Olinda, is called Tipo by the inhabitants.

Upon the higheſt hill within the place, ſtood formerly a convent belonging to the Jeſuits, being a magnificent ſtructure, founded by Sebaſtian King of Portugal, who endowed it with conſiderable revenues. It had a very fair proſpect, and might be ſeen at a good diſtance at ſea. Not far from thence was another monaſtery belonging to the Capuchins; and near the ſea-ſhore, another of the Dominican friars. Beſides which, it had two churches, the one called St. Salvador, and the other St. Peter.

It contained above two thouſand inhabitants, beſides the clergymen and ſlaves, among whom were two hundred that were accounted very rich. On the foot of the mountain upon which the city of Olinda was built, a ſtrong redoubt was erected, which in the year 1645 was by a ſerjeant betrayed to the Portugueſe for a ſum of money. About a league from the city, near the Water-ſide, were the ſuburbs, well ſtored with inhabitants and packhouſes, but deſtitute of freſh water, which they were fain to fetch from beyond the river.

The whole diſtrict of Parnambuco abounds in divers kinds of fruits and cattle. The valleys afford good paſturage, and the lower grounds near the rivers, great ſtore of ſugar reeds, which are much cultivated hereabouts. The mountains produce richer minerals here, than in the other captainſhips. During the rainy ſeaſon the heat is more tolerable here in the day-time than the cold nights.

The Cameleon, or Indian Salamander, otherwiſe called Gekko.

THIS creature, which is not only found in Brazil, but alſo in the iſle of Java, belonging to the Eaſt Indies, and which by our people is called Gekko, from its conſtant cry (like among us that of Cuckoe), is properly an Indian Salamander. It is about a foot long, its ſkin of a pale or ſea-green colour, with red ſpots. The head is not unlike that of a tortoiſe, with a ſtraight mouth. The eyes are very large, ſtarting out of the head, with long and ſmall eye-apples. The tail is diſtinguiſhed by ſeveral white rings. Its teeth are ſo ſharp as to make an impreſſion even upon ſteel. Each of its four legs had five crooked claws armed on the end with nails. Its gait is very ſlow, but wherever it faſtens it is not eaſily removed. It dwells commonly upon rotten trees,

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or among the ruins of old houſes and churches; it oftentimes ſett'es near the bedſteads, which makes ſometimes the moors pull down their huts.

Its conſtant cry is Gekko, but before it begins it makes a kind of hiſſing noiſe. The ſting of this creature is ſo venomous, that the wound proves mortal, unleſs it be immediately burnt with a red-hot iron, or cut off. The blood is of a paliſh colour, reſembling poiſon itſelf.

The Javaneſe uſe to dip their arrows in the blood of this creature; and thoſe who deal in poiſons among them (an art much eſteemed in the iſland of Java, by both ſexes) hang it up with a ſtring tied to the tail on the ceiling, by which means it being exaſperated to the higheſt pitch, ſends forth a yellow liquor out of its mouth, which they gather in ſmall pots ſet underneath, and afterwards coagulate into a body in the ſun. This they continue for ſeveral months together, by giving daily food to the creature. It is unqueſtionably the ſtrongeſt poiſon in the world, its urine being of ſo corroſive a quality, that it not only raiſes bliſters wherever it touches the ſkin, but turns the fleſh black, and cauſes a gangrene. The inhabitants of the Eaſt Indies ſay, that the beſt remedy againſt this poiſon is the Curcumie root. Such a Gekko was got within the body of the wall of the church in the Receif, which obliged us to have a great hole made in the ſaid wall to diſlodge it from thence.

There are alſo ſeveral ſorts of ſerpents in Brazil, ſuch as rattle-ſerpents, double-headed ſerpents, and ſuch like; of which the Brazilians enumerate twenty-three, viz. Boigvacu, or Liboya, Arabo, Bioby, Boicininga, Boitrapo, Boykupekanga, Bapoba, Kukuruku, Kaninana, Kurukakutinga, Grinipaijaguara, Ibiara, Jakapekoaja, Ibiboboca, Jararaka, Manima, Vona, Tarciboya, Kakaboya, Amorepinima.

We will give you an account of thoſe only that dwell in the houſes and woods of Pernambuko, paſſing by the reſt, as not ſo well known among us; and it is obſervable that though ſome of the American or Brazilian ſerpents exceed thoſe of Europe in bigneſs, they are nevertheleſs not ſo poiſonous.

The ſerpent of Boicininga, or Boicininginga, likewiſe called Boiquira by the Brazilians, is by the Portugueſe called Kaſkaveda and Tangedor, i. e. a rattle, and by our people a rattle-ſerpent, becauſe it makes a noiſe with its tail, not unlike a rattle. This ſerpent is found both upon the highway and in deſolate places; it moves with ſuch ſwiftneſs as if it had wings, and is extremely venomous. In the midſt it is about the thickneſs of a man's arm near the elbow, but grows thinner by degrees towards the head and tail. The belly and head is flattiſh, the laſt being of the length and breadth of a finger and a half, with very ſmall eyes. It has four peculiar teeth longer than all the reſt, white and ſharp like a thorn, which it hides ſometimes within the gums. The ſkin is covered with thick ſcales, thoſe upon the back being ſomewhat higher than the reſt, and of a pale yellowiſh colour, with black edges. The ſides of the body are likewiſe yellowiſh, with black ſcales on each ſide; but thoſe upon the belly are larger, four-ſquare, and of a yellow colour. It is three, four, and ſometimes five foot long; has a round tongue, ſplit in the middle, with long and ſharp teeth. The tail is compoſed of ſeveral looſe and bony joints, which make ſuch a noiſe that it may be heard at a diſtance; or rather at the end of the tail, is a long piece, conſiſting of ſeveral joints, joined within one another in a moſt peculiar manner, not unlike a chain. Every year there is an addition of one of theſe joints, ſo that you may know the exact age of the ſerpent by their number; nature ſeeming in this point to have favoured mankind, as a warning to avoid this poiſonous creature by this noiſe. One of theſe joints put in the fundament cauſes immediate death; but the ſting of this creature proceeds much ſlower in its operation, for in the beginning a bloody matter iſſues from

the wound, afterwards the fleſh turns blue, and the ulcer corrodes the adjacent parts by degrees.

The moſt ſovereign remedy uſed by the Brazilians againſt the poiſon of this and other ſerpents, is the head of the ſame ſerpent that has given the wound, which they bruiſe in a mortar, and in form of a plaiſter apply it to the affected part. They mix it commonly with faſting ſpittle, wherewith they alſo frequently moiſten the wound. If they find the poiſon begins to ſeize the nobler parts, they uſe the Tiproka as a cordial, and afterwards give ſtrong ſudorifics. They alſo lay open the wound, and apply cupping-glaſſes, to draw the venom from thence; or elſe they burn it with a red-hot iron.

The ſerpent Kukuruku is of an aſh colour, with yellow ſpots within and black ſpeckles without, and has juſt ſuch ſcales as the rattle-ſerpent.

The ſerpent Guaku, or Liboya, is queſtionleſs the biggeſt of all ſerpents; ſome being eighteen, twenty-four, nay thirty foot long, and of the thickneſs of a man in the middle. The Portugueſe call it Kobre Dehado, or the roebuck ſerpent, becauſe it will ſwallow a whole roebuck, or any other deer it meets with; and this is performed by ſucking it through the throat, which is pretty narrow, but the belly vaſtly big. After they have ſwallowed ſuch a deer, they fall aſleep, and ſo are catched. Such a one I ſaw near Paraiba, which was thirty foot long, and as big as a barrel. Some negroes ſaw it accidentally ſwallow a roebuck, whereupon thirteen muſqueteers were ſent out, who ſhot it, and cut the roebuck out of its belly. It was of a greyiſh colour, though others are inclining more to the brown. It is not ſo venomous as the other ſerpents. The negroes and Portugueſe, nay even ſome of the Dutch, eat the fleſh; neither are its ſtings looked upon as very infectious, the wound healing often up without any application of remedies; ſo that it ought not to be reckoned among the number of poiſonous ſerpents, no more than the Kaninana, Mavina, and Vocia. This ſerpent being a very devouring creature, greedy of prey, leaps from amongſt the hedges and woods, and ſtanding upright upon its tail, wreſtles both with men and wild beaſts; ſometimes it leaps from the trees upon the traveller, whom it faſtens upon, and beats the breath out of his body with its tail.

The ſerpent Jararaka is ſhort, ſeldom exceeding the length of an arm to the elbow. It has certain protuberant veins on the head like the adder, and makes much ſuch a noiſe. The ſkin is covered with red and black ſpots, the reſt being of an earth colour. The ſtings of this creature are as dangerous, and attended with the ſame ſymptoms, as thoſe of other ſerpents. Its body, the head, tail, and ſkin, being before taken away together with the entrails, boiled in the water of the root of Jurepeba, with ſalt, dill, and ſuch like, is looked upon as a very good remedy.

The ſerpent Boitrapo, called by the Portugueſe, Cobre de Cipo, is about ſeven foot in length, of the thickneſs of a man's arm, feeds upon frogs, and is of an olive colour. It is very venomous, and when it ſtings, occaſions the ſame ſymptoms as the ſerpent Kukuruku; nay, the wound is accounted paſt curing, unleſs you apply the hot iron.

The adder Ibiara, by the Portugueſe called Cobra Vega, or Cobra de das Cabecas, i. e. the double-headed ſerpent, becauſe it appears to have two heads, which, however, is not ſo. They are found in great numbers, lurking in holes under ground. They feed upon piſmires, are of the thickneſs of the length of a finger, and a foot and a half long, of a ſilver colour; nothing is more poiſonous than the ſtings of theſe creatures, though not beyond all hopes of cure, provided the before-mentioned remedies be applied in time.

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The ſerpent by the Brazilians called Ibiboboka, the Portugueſe call Cobra de Corais. It is very beautiful, and of a ſnow-white colour, ſpeckled with black and red ſpots, and about two foot long: its ſting is mortal, but kills by degrees.

The ſerpent Biobi, called by the Portugueſe Cabro Verde, or the green ſerpent, about three quarters of a yard long, and the thickneſs of a thumb; of a ſhining green colour. It lives among houſes, and hurts nobody, unleſs when provoked. Its ſting is, however, full of poiſon, and ſcarce curable. A certain ſoldier being wounded by one of theſe creatures, which lay hidden in a hedge, in his thigh, did, for want of proper remedies, die in a few hours after: his body ſwelled, and turned pale blue.

The ſerpent Kaninana is yellow on the belly, and green on the back; its length is about eight hands, and is looked upon as the leaſt venomous of all. It feeds upon eggs and birds, and the negroes and Brazilians eat the body, after they have cut off the head and tail.

The ſerpent called by the Brazilians Ibirakoa, is of ſeveral colours, with white, black, and red ſpots. The ſting of this creature is very poiſonous, attended with the ſame ſymptoms as that of Kukuruku; for it kills infallibly, unleſs proper remedies be applied immediately. If the poiſon has not ſeized the heart, they boil the fleſh of the ſame ſerpent with certain roots, and give it the patient in wine.

The ſerpent Tarĉiboya and Kakaboya are amphibious creatures. The firſt is of a blackiſh colour, very large, and ſtings when provoked, but is not very difficult to be cured. The Kakaboya is of a yellowiſh colour, ſix hands long, and feeds upon tame fowl.

Of the Senembi or the Leguan.

NOT only in the captainſhip of Parnambuko, but alſo all over Brazil and America, as likewiſe in the iſle of Java in the Eaſt Indies, are a certain kind of land crocodile, called by the Brazilians Senembi, by our people Leguan: ſome are larger than others, ſome being three, others four foot long, but ſeldom exceed five: they are all over covered with ſcales, which are ſomewhat bigger on the back, legs, and beginning of the tail, than on the other parts: the neck is about a finger and a half long, the eyes are black and bright, and the noſtrils in the hindermoſt part of the head. Each jaw-bone is full of ſmall, black, and ſhort teeth; the tongue is very thick: all along the back, from the neck to the tail, are ſmall ſharp teeth, of a greeniſh colour; they are biggeſt on the neck, and grow ſmaller and ſmaller towards the tail: under the throat are likewiſe many of the ſame kind. The whole ſkin is of a delicate green, with black and white ſpots. It has four legs and feet, with five claws armed with very ſharp nails: it can live two or three months without food. Its fleſh is as white as that of a rabbit, and of as good a taſte as that of fowls or rabbits, if it be boiled or well fried with butter. In the head of this creature are certain ſtones, which are an infallible remedy to break and drive the gravel out of the kidneys, given to the quantity of two drams at a time, or carried on ſome part of the body.

There are in Brazil lizards both great and ſmall; ſome are green, others greyiſh, and ſome four foot long, with ſparkling eyes. The negroes feed upon ſome of them, whom they kill with blunt arrows; they broil them, after they have ſkinned them, and eat them without the leaſt harm. Among all thoſe that are found among the thorns and briars, or the ruins of houſes, there is but one kind venomous, which is called Bibora. They are like the others, but leſſer, not exceeding the bigneſs

of a thumb; they are of an aſh colour, inclining to white; the body and limbs thick, and ſwelled with the poiſon, but the tail ſhort and broad. The wounds given by them are full of a thin ſtinking matter, with blue ſwellings, with a pain near the heart, and in the bowels.

There are alſo certain creatures, called Thouſand Legs, as likewiſe Hundred Legs, by the natives called Ambua, who bend as they crawl along, and are accounted very poiſonous. The firſt are commonly found in the houſes, and the laſt among the woods, where they not only ſpoil the fruits of the earth, but alſo plague men and beaſts.

Scorpions, by the Brazilians called Jaaciaiira, are found here in great numbers, being in ſhape like the European ſcorpions, but not ſo peſtiferous, and conſequently the wounds given by them are eaſily cured. They lurk in houſes, behind old ſtools, benches, and cheſts. They are exceeding big, no bigger being to be found in any other parts, ſome being five or ſix foot long, and of a conſiderable thickneſs.

There are ſuch prodigious quantities of piſmires in Brazil, that for this reaſon they are called by the Portugueſe Rey de Brazil, i. e. King of Brazil. They eat all that lights in their way, as fruit, fleſh, fiſh, and inſects, without any harm. There is alſo a certain flying piſmire, of a finger's length, with a triangular head, the body being ſeparated into two parts, and faſtened together by a ſmall ſtring. On the head are two ſmall and long horns, their eyes being very ſmall. On the foremoſt part of the body are ſix legs, three joints each, and four thin and tranſparent wings; to wit, two without, and two within; the hindermoſt part is of a bright brown colour, and round, which is eaten by the negroes. They dig into the ground like the moles, and conſume the ſeed.

There is another kind of great piſmires, reſembling a great fly; the whole body of which is about the length of half a finger, and ſeparated into three ſeveral parts. The laſt part reſembling in ſhape and bigneſs a barley-corn; the middlemoſt of an oblong figure, with ſix legs, half a finger long, each of which has four joints: the foremoſt part, or the head, is pretty thick, in the ſhape of a heart, with two horns, and as many black crooked teeth: the white of the eyes is inclining to black, the whole compoſition of the head being the two eyes, placed oppoſite to one another, reſembling the figure of a heart. The fore and hindermoſt parts are of a bright red colour.

There is another kind of piſmire, of a bright black colour, with black and rough legs. It is about the length of a finger, with a large four-ſquare head, ſtarting black eyes and teeth, and two horns, half a finger longer. The body is alſo ſeparated into three parts. The foremoſt of an oblong figure, not very thick, with ſix legs, each of the length of half a finger; the middlemoſt very ſmall and ſquare, not exceeding the bigneſs of a louſe; the hindermoſt is the biggeſt of the three, of an oval figure, and ſharp on the end. Theſe three parts are faſtened together with a ſingle ſtring, the Brazilians call it Tapijai.

There is beſides this another piſmire, called by the Brazilians Kupia, of a cheſnut brown colour; its head being as big as another piſmire, with black eyes, two horns, and two tuſks inſtead of teeth. The whole body is covered with hair; it is divided into two parts; the foremoſt with ſix legs, being ſomewhat leſs than the hindermoſt; at certain ſeaſons it gets four wings, the foremoſt being a little bigger than the hindermoſt, which it loſes again at a certain time.

The Iron Pig of Brazil, called by the Brazilians Kuandu, and by the Portugueſe Ourico Kachiero, is of the bigneſs of a large ape, its whole body being covered with ſharp ſpikes of three or four fingers long, without any hair. Towards the body thoſe

ſpikes

ſpikes are halfways yellowiſh, the remaining part is black, except the points, which are whitiſh and as ſharp as an awl. When they are vexed, they are able, by a certain contraction of the ſkin, to throw or dart them with ſuch violence, that they wound, nay, ſometimes kill men or beaſts. Their whole body, to meaſure from the hindermoſt part of the head to the beginning of the tail, is a foot long, and the tail a foot and five inches in length, which likewiſe has halfways ſharp ſpikes, the reſt being covered with briſtles like other hogs. The eyes are round, ſtarting and gliſtering like a carbuncle; about the mouth and noſe is hair of four fingers length, reſembling thoſe of our cats or hares: the feet are like thoſe of apes, but with four fingers only without a thumb, inſtead of which you ſee a place vacant, as if it had been cut away. The fore-legs are leſs than the hindermoſt, they are likewiſe armed with ſpikes, but not the feet.

This creature commonly ſleeps in the day-time, and roves about by night; it breathes through the noſtrils, is a great lover of fowl, and climbs up the trees, though very ſlowly. The fleſh is of no ungrateful taſte, but roaſted and eaten by the inhabitants. It makes a noiſe jii, like the Luyaert.

That four-legged creature, by the Brazilians called Ai, by the Portugueſe Priguiza, and by the Dutch Luyaert (lazy-back) from its lazy and ſlow pace, becauſe in fifteen days time it ſcarce walks above a ſtone's throw. It is about the bigneſs of a middle-ſized fox, its length being a little above a foot, to meaſure from the neck (which is ſcarce three fingers long) to the tail. The fore-legs are ſeven fingers long to the feet, but the hindermoſt about ſix; the head round, of three fingers in length; its mouth, which never is without a foam, is round and ſmall, its teeth neither large nor ſharp. The noſe is black, high, and glib, and the eyes ſmall, black and heavy. The body is covered all over with aſh-coloured hair, about two fingers long; which are more inclining to the white towards the back. Round about the neck the hair is ſomewhat longer than the reſt. It is a very lazy creature, unable to undergo any fatigues, by reaſon its legs are as it were disjointed in the middle; yet it keeps upon the trees, but moves, or rather creeps along very ſlowly. Its food is the leaves of the trees; it never drinks, and when it rains, hides itſelf. Wherever it faſtens with its paws, it is not eaſily removed; it makes, though ſeldom, a noiſe like our cats.

The Piſmire Eater, is thus called, becauſe he feeds upon nothing but piſmires; there are two ſorts, the great and the ſmall: the Brazilians call the firſt Tamanduai, and the laſt Tamanduai Guacu. It is a four-legged creature, of the bigneſs of a dog, with a round head, long ſnout, ſmall mouth, and no teeth. The tongue is roundiſh, but ſometimes twenty-five inches, nay, two foot and a half long. When it feeds, it ſtretches out its tongue upon the dunghills, till the piſmires have ſettled upon it, and then ſwallows them. It has round ears, and a rough tail; is not nimble, but may be taken with the hand in the field. The ſmall one, called Tamanduai Guacu, is of the bigneſs of a Brazilian fox, about a foot in length. On the fore-feet it has four crooked claws, two big ones in the midſt, and the two leſſer on the ſides. The head is round, yet pointed at one end, a little bent below; with a little black mouth without teeth. The eyes are very ſmall; the ears ſtand upright about a finger's length. Two broad black liſts run along on both ſides of the back; the hairs on the tail are longer than thoſe on the back, the extremity of the tail is without hair, wherewith it faſtens to the branches of the trees. The hairs all over the body are of a pale yellow, hard and bright. Its tongue is round, and about eight fingers long. It is a very ſavage creature, graſps every thing with its paws, and if you hit it with a ſtick, ſits upright like a bear, and takes hold of it with its mouth. It ſleeps all day-long, with its

its head and fore-feet under the neck, and roves about in the night time. As often as it drinks, the water ſpouts forth immediately through the noſtrils.

They have alſo a kind of ſerpents of about two fathoms long, without legs, with a ſkin of various colours, and four teeth. The tongue is ſplit in the middle, reſembling two arrows, and the poiſon is hid in a bladder in its tail.

The four-legged creature, called by the Brazilians Tatu and Tatupera, by the Spaniards, Armadillo, by the Portugueſe, Encuberto, and by the Dutch, Schilt Verken (ſhield-hog), becauſe it is defended with ſcales like as with an armour, reſembles in bigneſs and ſhape our hogs; there are ſeveral ſorts of them. The uppermoſt part of the body, as well as the head and tail, is covered with bony ſhields, compoſed of very fine ſcales. It has on the back ſeven partitions, betwixt each of which appears a dark brown ſkin. The head is altogether like that of a hog, with a ſharp noſe, wherewith they grub under ground; ſmall eyes, which lie deep in the head; a little, but ſharp tongue; dark brown and ſhort ears, without hair or ſcales: the colour of the whole body inclining to red; the tail in its beginning is about four fingers thick, but grows by degrees ſharp and round to the end, like thoſe of our pigs: but the belly, the breaſt, and legs are without any ſcales; but covered with a ſkin not unlike that of a gooſe, and whitiſh hair of a finger's length. It is generally very bulky and fat, living upon melons and roots, and does conſiderable miſchief in the plantations. It loves to rout under ground, eats rabbtis, and the dead carcaſes of birds, or any other carrion: it drinks much, lives for the moſt part upon the land, yet loves the water and marſhy places. Its fleſh is fit to be eaten. It is catched like the doe in Holland with the rabbits, by ſending a ſmall dog abroad, who by his barking, gives notice where it lurks under ground, and ſo by digging up the ground it is found and catched.

The bats in Brazil, called by the inhabitants Andirika, are of the bigneſs of our crows; they are very fierce, and bite moſt violently with their ſharp teeth. They build their neſts in hollow trees and holes.

The bird called by the Brazilians Ipekati Apoa, by the Portugueſe Pata, is no more than a gooſe; and for that reaſon by the Dutch called a wild-gooſe. It is of the bigneſs of one of our geeſe of about nine months old, and in all other reſpects reſembles them. The belly and under part of the tail, as likewiſe the neck, is covered with white feathers; but on the back to the neck, on the wings and head, the feathers are black intermixed with ſome green. There are alſo ſome black feathers intermixed with the white ones on the neck and belly. They differ from our geeſe in this, that they are ſomewhat bigger; their bills reſemble rather thoſe of our ducks, but are black, and turned at the end, and on the top of it grows a broad, round, and black piece of fleſh, with white ſpeckles. They are commonly found near the river ſide, are very fleſhy and well-taſted.

The bird by the Brazilians called Toukan, or large bill, is about the bigneſs of a wood-pigeon. It has a crop about the breaſt of three or four fingers in compaſs, of a ſaffron colour, with high red-coloured feathers round the edges, which are yellow on the breaſt, but black on the back and all the other parts of the body. Its bill is very large, of the length of a palm of a hand, yellow without and red within. It is almoſt incredible how ſo ſmall a bird is able to manage ſo large a bill, but that it is very thin and light.

The bird called by the Brazilians Kokoi, is a kind of a crane, very pleaſing to the ſight, as big as our ſtorks. Their bills are ſtraight and ſharp, about ſix fingers in length, of a yellowiſh colour inclining to green. The neck is fifteen fingers long, the body ten, the tail five: their legs are half-ways covered with feathers, about eight

fingers in length, the remaining part being ſix and an half. The neck and throat is white, both ſides of the head black, mixt with aſh-colour. On the far and undermoſt part of the neck are moſt delicious, white, long, and thin feathers, fit for plumes: the wings and tail are of an aſh-colour, yet mixt with ſome white feathers. All along the back you ſee long and light feathers, like thoſe on the necks, but are of an aſh-colour: their fleſh is very good, and of a grateful taſte. There is another kind of theſe birds, which is ſomewhat bigger than a tame duck. Its bill is ſtraight, and ſharp at the end, of the length of four fingers and a half, with a double ſet of teeth both above and below: the head and neck (which is two foot long) reſembles the crane, with black eyes incloſed in a gold-coloured circle. The body is two foot and a half in length; the tail, which ſtands even with the extremity of the wings, four fingers. The bill is of an aſh-colour towards the head, the reſt yellow, inclining to green. The head and upper part of the neck are covered with long pale yellowiſh feathers, intermixt with black. On the back and wings it has aſh-coloured feathers inclining to yellow: but the legs and feet are dark grey: the fleſh of this bird is eatable, and taſtes like that of a crane.

The bird, called by the Brazilians Jabiru-Guaku, and by the Dutch, Schuur Vogel (or barn-bird), has no tongue, but a very large bill, near ſeven foot and a half long; round and crooked towards the end, of a grey colour. On the top of the head is a crown of white and green feathers. The eyes are black, behind each of which are two great concavities inſtead of ears. The neck is ten fingers in length, one half part of which, as well as the head, is not covered with feathers, but with an aſh-coloured, whitiſh, rugged ſkin. This bird is of the bigneſs of a ſtork, with a ſhort black tail, which ſtands even with the extremities of the wings. The other part of the neck, and the whole body, is covered with white feathers, and thoſe on the neck very long ones: the wings are likewiſe white, but mixed with ſome red. The fleſh, if boiled, after the ſkin is taken off, is good food, being very white, but ſomewhat dry.

Brazil produces incredible quantities of other wild fowl of all ſorts, both great and ſmall, ſome of which live among the woods, others in the water, but are very good food.

Of the beſt kind are the thruſhes, called by them Bamodi; pheaſants of divers kinds, called by the barbarians Magnagu, Jaku, and Arakua.

Mouton is a bird of the bigneſs of a peacock, but has black feathers; the fleſh is very good and tender. Becauſe this country is full of fruit-trees and woody places, it produces abundance of ſparrow-hawks, and other hawks, called by the Portugueſe Guavilon, and by the Brazilians Teguata and Inage, which are always at enmity with the chickens and pigeons.

Among thoſe that live both in the water and upon the land, the wild ducks claim the precedency; ſome of thoſe are ſmaller than the European ducks, others much exceed them, being as big as a gooſe. They have alſo a ſort of ſnipes, called Jakana-miri and Jakana-guaku. Beſides theſe there are cranes, quails, and oſtriges, and many others of that kind; the fleſh of which is eatable, but not very toothſome.

The reſt of theſe birds are very greedy after the amber-gris, which is thrown aſhore by the boiſterous ſea, which they devour before the inhabitants can come thither to gather it. They have alſo abundance of Parakets, or ſmall parrots; theſe never ſpeak; but their parrots are extraordinary fine and large, ſome of which learn to ſpeak as diſtinctly as a man. I have ſeen ſome of theſe parrots expreſs every thing what they heard cried in the ſtreets very plainly; and among the reſt I ſaw one, which if put in a baſket upon the floor, would make a dog that belonged to the ſame houſe ſit up before the

baſkit

baſket, crying out to him, Sit up, ſit up, you naſty toad. Neither did this parrot leave off calling and crying, till the dog came to ſit up before the baſket. It was afterwards preſented to the Queen of Sweden.

There is among the reſt a certain ſmall bird, no bigger than a joint of a finger, which, notwithſtanding this, makes a great noiſe, and is catched with the hands whilſt it is ſitting among the flowers, from whence it draws its nouriſhment. As often as you turn this bird, the feathers repreſent a different colour, which makes the Brazilian women faſten them with golden wires to their ears, as we do our ear-rings. The birds here are never deſtitute of food, which they always meet with either among the flowers or fruits of the trees, which are never ſpoiled here during the winter ſeaſon.

The rivers and lakes of Brazil, as well as the neighbouring ſea, furniſhes them with great ſtore of all ſorts of fiſh, which are accounted ſo wholeſome here, that they are even allowed for thoſe that are troubled with agues. The ſtanding waters near the ſea-ſide, which ſometimes are quite dried up, produce abundance of craw-fiſh, tortoiſes, ſhrimps, crabs, oyſters, and divers others of this kind, which are all very good food.

There are abundance of fiſh in Brazil common to the ſea and rivers, eſpecially during the rainy ſeaſon; when a great quantity of the river-water being conveyed into the ſea, the ſweetneſs of the water allures the fiſh into the rivers, where, meeting with abundance of green weeds (the product of the bottom of the rivers), they never return to the ſea.

Among the river fiſh, the chiefeſt are, the Duja, Prajuba, and Akara-Puku; the laſt of which reſembles the beſt and largeſt of our perches.

Brazil produces alſo various kinds of inſects, ſome of which are of four fingers' length, and an inch thick. They have likewiſe ſilk-worms, called by the Brazilians Iſokukus, and their ſilk, Iſokurenimbo. There are alſo divers ſorts of fire-flies, which are likewiſe found in the Eaſt Indies, where we ſhall give you a farther account of them. Beſides theſe, there are many ſorts of other flies, hornets, waſps, and bees; ſome of which produce honey, ſome none at all.

Among other kinds of ſpiders there is one of a prodigious bigneſs, which is always found either in dunghills, or in the concavities of hollow trees: they call it Nhanduguaka. Theſe creatures weave cobwebs like other ſpiders; the ſkin is rough and black, provided with ſharp and long teeth. This creature, if provoked, wounds with its poiſonous ſting, which is ſo ſmall as ſcarce to be viſible, and raiſes a blueiſh tumour, which is very painful, and, if care be not taken in time, occaſions an inflammation, attended with ſuch dangerous ſymptoms, as prove afterwards incurable.

Near Rio St. Franciſco are vaſt numbers of a certain ſmall inſect not unlike our crickets; I have been very curious to get ſight of this creature, to ſatisfy myſelf as to its ſhape and reſemblance to others of this kind; but though it makes a very ſhrill noiſe, which reſembles that of our crickets, I was never able to ſee any of them; for as ſoon as you approach they deſiſt, ſo that you are at a loſs which way to look. They ſing ſometimes for a quarter of an hour without intermiſſion. In the iſland of Java, in the Eaſt Indies, it is commonly heard in the months of February and June. At laſt I had the good fortune to get one of theſe creatures into my hands, by means of a certain Chineſe woman, after I had often been in ſearch of it, both within and without the city of Batavia. The Javaneſe ſet two of theſe little creatures a fighting together, and lay money on both ſides, as we do at a cock-match.

There are alſo abundance of ravenous wild beaſts in Brazil, ſuch as tigers, leopards, &c. The tigers are extremely ſavage here; they fall upon beaſts, and ſometimes upon

men, of whom ſeveral were killed by them in my time. A certain Portugueſe had a ſugar-mill very pleaſantly ſituated near a wood, whither we uſed to go to divert ourſelves ſometimes. The Portugueſe ſitting one time with four more of his friends in the houſe, with the windows drawn up for the conveniency of the land air, a dog belonging to the houſe, who had ventured too far into the adjacent wood, was purſued by a tiger, ſo that to ſave his life he leapt into the window to ſeek for ſhelter near his maſter; but the tiger cloſely purſuing him, leapt alſo through the window into the room, where the door being ſhut, he tore two of thoſe there preſent in pieces before the reſt could make their eſcape, and afterwards went his way.

There is another ſort of ſavage beaſt in thoſe parts, called by ſome of our people, Jan-over-Zee (or jack beyond ſea), which ſurpaſſes all others in nimbleneſs, and tears all to pieces it meets with.

Brazil has alſo great plenty of cattle, but the fleſh will not keep above twenty-four hours after it is dreſſed. The Dutch cut off the fat, and cut the lean in thin ſlices, and dry it in the ſun like fiſh. No butter is to be made here, becauſe the milk turns to curds immediately; the Dutch butter is drawn out of a veſſel like oil.

Their hogs are ſmall and black, but very well taſted, and wholeſome; there is another kind of amphibious hogs, by the Portugueſe called Kapiverres; they are very near as black as the others, and good food.

There is another four-legged creature in Brazil, called by the inhabitants Tapperete, and by the Portugueſe, Antes; its fleſh has the taſte of beef, but ſomewhat finer. It is about the bigneſs of a calf, but ſhaped like a hog; it ſleeps all day among the woods, and ſeeks for belly-timber in the night: its food is graſs, ſugar-reeds, cabbages, and ſuch like. They have likewiſe good ſtore of goats, called by them Pakas and Kotias, and hares and rabbits, which do not give way in goodneſs to thoſe of Europe. There is alſo an excellent kind of lizards, called by the inhabitants Vuana and Teju, which are accounted a dainty bit.

The fiſh in Brazil are no leſs conſiderable for the ſupply of our plantations, than the cattle, which are on the coaſts of Brazil, but eſpecially in Pernambuko, where they are found in ſuch plenty, that at one draught they catch ſometimes two or three thouſand fine fiſh in the four or five ſummer months, for during the rainy ſeaſon they catch but few. There are certain diſtricts along the ſea-coaſt whither the fiſh moſt reſort; ſome of thoſe belong to the inhabitants, the reſt to the company, and are farmed at a certain rate per annum. The lakes, as well as the bays, are ſtored with an incredible multitude of fiſh; the firſt are, by the Portugueſe, called Alagoas; and the beſt they produce are the Sindia, Queba, and Nöja, all without ſcales. And though the fiſh which are catched in the lakes are not ſo much eſteemed as the river-fiſh, nevertheleſs are they not much behind them in goodneſs, becauſe theſe lakes are not always ſtanding-waters, but intermixed with ſeveral rivers. Some of theſe fiſh they dry in the ſun. The chiefeſt of this kind are thoſe called by the Brazilians Kurima Parati, and by the Dutch inhabitants, Herders. They abound no leſs in ſea-fiſh of all ſorts. The fiſh, called by the Brazilians Karapantangele, which is not unlike our perch, has the preference among them. And as the rivers furniſh infinite numbers of fiſh, ſo they are generally fatter and better taſted than the ſea-fiſh. Thoſe which are catched in thoſe fiſheries near the ſea-ſhore, are, for the moſt part, ſalted, and carried from thence into the country, for the uſe of the ſugar-mills, which cauſe great plenty among them.

The craw-fiſh, which are in great quantities near the rivers, and in the marſhy grounds, ſerve likewiſe for food to the Brazilians and negroes, and ſome of our people like them tolerably well.

It is further to be obſerved, that whereas a conſiderable number of cattle, during the war, was run aſtray out of the parks into the foreſts and woods beyond the river of St. Francis, it was thought convenient by the great council of the company here, to agree with certain perſons to catch this cattle, and bring it to the Receif, in order to be killed for the uſe of the inhabitants. The time of the ſaid contract being expired, it was conſulted, whether the ſame ſhould be renewed; but it being apparent that there were not enough left to quit coſt, the ſame was laid aſide, and this reſolution ſent to the council of Nineteen. For in the mean-while the inhabitants near Rio St. Franciſco and Rio Grande, having applied themſelves with great induſtry to the breeding of cattle, their parks were ſo well ſtocked by this time, that they not only furniſhed the inhabitants of the Receif, but alſo the ſugar-mills, with plenty of meat, which was bought at the rate of three and four-pence per pound in the country; beſides that, they provided the garriſons with the ſame for a twelve-month, after the ſtore-houſes of the Receif were emptied; and notwithſtanding this, the inhabitants of thoſe parts were not out of debt, when thoſe of Pernambuko and Parayba were involved over head and ears, which ſhews what advantage they reaped from the breeding of cattle; and that if the Dutch Brazil had continued in peace, thoſe parks might have furniſhed all the garriſons with meat, without impairing their ſtock for breeding; which, together with the great plenty of fiſh, are the two main pillars of the ſtate of Brazil.

Notwithſtanding all which, it is certain that the inhabitants of the Dutch Brazil cannot be provided with ſufficient maintenance, without a yearly ſupply from Europe, as well of eatables as other commodities, as has been found by experience, to the great detriment of the company; after our ſtore-houſes were exhauſted by the ſeveral expeditions againſt Angola, Meranhaon, and other places.

In the rivers and lakes here are alſo found crocodiles, by the Brazilians called Jakare, and in the Eaſt Indies, Kaymans. They are like the African crocodiles, but not quite ſo big, ſeldom exceeding five foot in length. They lay twenty or thirty eggs bigger than geeſe eggs, which are eaten by the Brazilians, Portugueſe and Dutch, as well as the fleſh.

In the ſeas near the coaſt of Brazil, they meet alſo ſometimes with great lampreys. Before the bridge from the Receif to Maurice-Town was built, one of this kind of a conſiderable bigneſs did lurk near that paſſage, where the boats uſed to paſs over from one ſide to the other, and ſnatched all that fell in this way, (both men and dogs that ſwam ſometimes after the boat,) into the water: but at a certain time, by the ſudden falling of the tide, being got aground with the foremoſt part of the body, he was with much ado brought aſhore.

The diſtrict of Pernambuko does alſo abound in various ſorts of fruits, as well as all the other parts of Brazil, of which we ſhall ſay more hereafter.

Upon the captainſhip of Pernambuko, borders to the north the captainſhip of Tamarika, which owes its name to an iſland of the ſame name, being the chiefeſt part of this diſtrict, which however extends near thirty-five leagues along the ſea-coaſt on the continent.

The iſland of Tamarika lies two leagues to the north of Pomerello, in the ſea; being parted from the continent by the river Tamarika, its moſt ſouthern point lying under 7° 58′ ſouth latitude. It is from ſouth to north about two leagues long, and its circuit near ſeven. To the juriſdiction of this iſle did alſo belong Goyana, Capavaribi, Terukupa, and Abray on the continent. Formerly it had but few inhabitants, and ſcarce any houſes, though it is a very pleaſant iſle, and tolerably fertile, producing brazil-wood, cocoa-nuts, cotton, ſugar-reeds, melons, and ſuch like; beſides wood for firing, and freſh

freſh water for the conveniency of the Receif: it abounds likewiſe in wood both for building of houſes and ſhipping. This iſland was much infeſted with wild beaſts, which did great miſchief to the ſugar-reeds: this moved Peter Pas, director of the captainſhip of Itamarika, to make his application to Count Maurice and the great council in 1647, to know their pleaſure, whether they ſhould diſpoſe of thoſe beaſts by contract, to ſuch as would be at the charge of catching of them, or whether they ſhould be taken and killed for the uſe of the garriſons; but this was rejected by the council, who enjoined the inhabitants not to kill thoſe beaſts in the open fields, unleſs they ſhould break into their plantations, it being for the intereſt of the company to preſerve them in caſe of a neceſſity: the damage which from thence might accrue to the ſugar reeds, being to be prevented by ſurrounding their plantations with pales and ſtakes.

The iſland is looked upon as of the greateſt conſequence to us, it having been propoſed by ſome to transfer the ſeat of the Dutch-Brazil from the Receif thither; but the directors of the company did not agree to it, conſidering that at that time this iſland was quite deſolate; whereas upon the Receif, were ſtore-houſes, magazines, ware-houſes, and ſuch like buildings ready to their hands, beſides that the place was much more pleaſant, fertile and ſtronger; and the harbour much more convenient for ſhips: the river Tamarika on the other hand being not navigable, but for ſmall veſſels, by reaſon of the ſhallowneſs of the harbour, which was noted for ſhipwrecks. The defect of freſh water in the Receif, in which this iſle abounds, may be ſupplied from the river Biberibi; beſides that, they had ſeveral baſons with freſh water within the Receif, for their preſent uſe. During the war with the Portugueſe we were ſenſible of the conveniences we received from this iſland, by reaſon of its ſtrength both by art and nature, which might ſerve as a ſave retreat upon all emergencies; beſides, that its preſervation was abſolutely neceſſary for the Receif, which was ſupplied from thence with fiſh, and ſeveral other ſorts of proviſions.

Upon the banks of the river at the ſouth entrance of the harbour, we had built a quadrangular fort called Orange. It was provided with a goodly wall, but the ditch was not very deep, and for the moſt part without water, for which reaſon it was ſtrengthened with palliſadoes. On the north-ſide we had a hornwork, but much decayed; within the body of the fort was a powder-vault, and other conveniences for the bedding of ſoldiers. Several batteries were raiſed upon the walls, mounted upon ſix braſs and as many iron great guns. In the iſland near the entrance of the river, cloſe by a moraſs full of thorn-buſhes, was a ſmall town, moſt inhabited by ſoldiers, called by the Portugueſe Noſtra Senhora de la Conceptiano. Upon a hanging-rock, juſt by, was an old redoubt erected by the Portugueſe, called by the ſame name, which, together with the whole iſland, was taken by the Dutch, under the command of Colonel Schoppe from the Portugueſe, and the place, after his name, called Schoppe's Town. This fort was afterwards by the Dutch cloſed up on the backſide towards the church, ſo that it afterwards ſerved both for the defence of the town and the harbour, as the Block-houſe on the north-ſide covered the gates. There were then eleven pieces of cannon mounted upon it. At the north entrance of the harbour, was another redoubt, which defended that paſſage on that ſide, with three iron cannon. One Mr. Dortmont, governor of Itamarika, found under the before-mentioned rock in 1645, as he was digging a well, a ſpring of freſh water, which proved very uſeful for the garriſon, becauſe it could not be cut off by the enemy.

Somewhat higher up the river Tamarika, lies an iſland called Magioppe, where are found abundance of Mandihoka roots. You may go quite round this iſland in barks; it having a kind of a harbour on both ends, viz. to the ſouth and north, but the firſt is

the beſt; becauſe there riſes from the northern ſhore of the continent, a ſhelf, which reaches very cloſe to the iſland, the channel betwixt both not having above ten or twelve foot water. The only harbour fit for uſe thereabouts is the ſouth entrance of the river, which makes Tamarika an iſland, where ſhips that drew fourteen or fifteen foot water, may paſs through; there is no convenient anchorage. That end, where the river returns into the ſea, is by the Dutch called the northern entrance, and by the Portugueſe, Katuamma.

Betwixt Pomerello and the river Tamarika, a river comes from the continent, fit for barges, called Marafarinha; and half a league within the mouth of the river Tamarika, another falls likewiſe from the continent, called Garaſſou, but is of little moment. From thence to the north, are ſeveral other rivers near the ſea-ſhore, which are navivable with barges, for the conveniency of the ſugar-mills, of which there are ſeveral thereabouts.

A league and a half further to the north of the north entrance of Tamarika, is a noted point of land called by the Portugueſe Punto Pedra, ſurrounded with a Receif, betwixt which you may paſs with barges and yachts.

A league further to the north from this point, and three leagues to the north-weſt of Tamarika, is the ſmall river Goyana, under 7° 46′, which diſembogues in two branches in the bay; at the entrance lies a great rock, where is great ſtore of ſea-fowl. Before it lies a great Receif, but within it are ſo many ſhelves that renders the paſſage very dangerous.

About two leagues and a half beyond the river Goyana, to the north, is a great river, called Auyay, but the entrance is ſo choaked up with ſands, that there is ſcarce any paſſage for barges. This river ſends forth ſeveral branches into the country, upon one of which to the north, lies the village of Maurice, and upon the ſouthern branch the village Auyay.

Among others, Porto Franciſco lies in a creek three long leagues to the north of the river Auyay; and five leagues to the north-weſt of the ſame river, an unnavigable river called Grammana, beſides ſeveral other rivulets.

About a league and a half to the north-weſt of the river Grammana, is the Cabo Blanco, or White Cape; and three leagues from thence to the north-weſt, the cape of Parayba, being a long point of land, with a large adjacent bay. The whole coaſt from Pomerello to the cape of Parayba, is covered with receifs or rocks, which, lying for the moſt part about half a league from the ſhore, and the water between them being generally very ſmooth, affords an eaſy paſſage to barges, even in tempeſtuous weather; when it is almoſt impoſſible for ſhips to paſs without the rocks, by reaſon of the violence of the current from the northern and the ſouthern winds, which blow there continually.

Three leagues within the mouth of the river Goyana is a town of the ſame name, where is kept the court of judicature of this captainſhip. There are five or ſix ſugar-mills thereabouts, ſituated upon the banks of the river, for the more commodious tranſportation of ſugar in barges to Pernambuko. This country produces likewiſe brazil-wood, ginger, cotton, and Indian nuts; the people called Petiguaves inhabit here, though this whole tract of land, as far as Cabo Blanco, is not very populous, having only a few villages, inhabited by the Brazilians.

The iſle of Tamarika has ſeveral landing-places on the river ſide, the chiefeſt are; Os Markos and Pedreiros, where the river is narroweſt; Tapaſima and Kamboa of Domingos Rebeyro; the great Makqueira and Kamboa of Conrad Pauli; in which places the enemy landed in that iſland; the paſs near the north entrance of Topowa, and the iſland Tapoſoka, where with one ſingle ſhip you may defend the paſſage from

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the rivers Tujukapape and Maſſerandaku, as likewiſe from the ſea. For the reſt, the ſhore all along the river being very marſhy and full of Manga trees, is of a very difficult acceſs. The ſhore towards the ſea-ſide is very flat, but woody, which, together with the ſands that are at ſome diſtance in the ſea, makes the approach of ſhips very dangerous on that ſide. Formerly the court of judicature of the captainſhip was kept in this iſland but was afterwards transferred from thence, as we told you before, to the town of Goyana and Kapivaribi on the continent, becauſe theſe places were both more populous, and more ſugar-mills were built thereabouts, the ground being much better here than in the iſland. In my time there were five judges belonging to this court, three of which lived at Goyana, and the other two in the iſle of Itamarika. However, this court was afterwards likewiſe removed from Goyana. In the year 1641, Mr. Peter Pas was director of the captainſhip of Itamarika for the Weſt India company, and Captain Sluiter commander-in-chief over the ſoldiers.

This captainſhip has derived its name from the capital city, which has borrowed hers of the river Parayba, upon which it is ſituate. It is one of the moſt northerly captainſhips, about five leagues diſtant from the ſea. It was formerly in the poſſeſſion of the French, who were in 1585 chaſed from thence and ſeveral other harbours, by the Portugueſe general Martin Leytan.

Five leagues upwards the river Parayba, is a city founded by the Portugueſe, and after Philip King of Spain, called Filippen, and Noſſa Senhora de Nives, otherwiſe Parayba, from the river Parayba; which name was by the Dutch, after they had in November 1633 conquered the whole captainſhip, changed into that of Frederick's Town, after Frederick Henry Prince of Orange. This city has been but lately built by the Portugueſe, and had ſeveral ſtately houſes with marble pillars, the reſt being only of ſtone. Here is kept the court of judicature of this captainſhip. Before the time of the rebellion of the Portugueſe, this place was inhabited as well by the Portugueſe as Dutch, being much frequented by the inhabitants of the circumjacent country, who uſed to exchange their ſugar for what other commodities they ſtood in need of, which was afterwards from thence tranſported to other places.

Within the mouth of the river Parayba, were three very conſiderable forts. One on the ſouth point, by the Portugueſe called Catharine, but by Count Maurice afterwards named Margaret after his ſiſter. It was defended with five goodly baſtions, and a hornwork without.

The fort called St. Antonio by the Portugueſe, was built upon a ſmall iſland, which by a narrow branch was ſeparated from the north point. This is only the remainder of a large four-ſquare fort, formerly erected by the Portugueſe, which was afterwards raſed by the Dutch, part of it having been waſhed away by the river. It is ſurrounded with palliſadoes and a good ditch, ſupplied with water from the before-named branch of the river; the walls are very ſtrong, and upon a battery are mounted ſix iron pieces of cannon. It may be defended by the cannon both from the city of Parayba, and from the fort Margaret, lying juſt oppoſite to it on the ſouth-ſide, which is the reaſon it was always but careleſsly guarded by the Portugueſe.

The third fort lies upon a triangular iſland, called Reſtinga, not far from thence, more upwards the river. It was ſtrengthened with palliſadoes, and upon the batteries were mounted five braſs, and as many iron pieces of cannon.

The captainſhip of Parayba is watered and divided by two conſiderable rivers, viz. the Parayba and Mongoapa, otherwiſe called St. Domingo. The great river of Parayba lies under the ſixth degree twenty-four minutes, four leagues to north of Cabo Blanco, and diſcharges itſelf in two branches into the ſea, being ſeparated by a large ſand-bank.

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One is called the northern, and the other the ſouthern entrance. From the laſt extends a rocky ridge as far as Cabo Blanco, and within the river lies a ſand-bank quite croſs to the fort Margaret. This river is very ſhallow during the ſummer time, but in the winter ſeaſon the waters riſe to that height that they overflow all the adjacent country, ſometimes to the great loſs of men and cattle.

Two leagues beyond this river to the north, is a bay which affords a very ſafe ſtation to the largeſt ſhips. It is by the Portugueſe called Porto Lucena, and by the Dutch the Red Land, the grounds being red hereabout. There is very good anchorage here at five and ſix fathom water, and the country near it affords very good freſh water, which is the reaſon why the Dutch ſhips bound for Holland from the Receif, uſed to ſtay for one another's coming in this bay, and to provide themſelves with freſh water.

Half a league farther to the north, under 6° 34′, the river Mongoapa, or Mongoanawapy, exonerates itſelf into the ſea. This river is much larger towards its ſource than at the mouth, the banks on both ſides being full of briars, buſhes, and Manga-trees. Before its entrance lies a receif, and at the very mouth two dangerous ſand-banks; it has three fathom water at low tide.

About two ſmall leagues to the north of the river Mongoapa, is a bay called by the Portugueſe Bahia de Treycano, or Treaſon, where at about a league diſtant from the ſhore, is eleven or twelve fathom water. Five leagues to the north of this bay, you meet with the river Barra Conguon or Konayo, which is ſcarce paſſable for yatchts. About a league and a half from thence is a large bay of about two leagues in length, called Pernambuko; and five leagues beyond it to the north, the river Jan de Sta, or Eſtau.

The natives of Parayba inhabit about ſeven villages, the chiefeſt of which is called Pinda Una, which in 1634 contained about fifteen hundred inhabitants, whereas each of the others had ſcarce three hundred; each of theſe comprehending not above five or ſix very long buildings, with a great many doors, but very ſmall ones.

The chief commodities of this captainſhip are ſugar, brazil-wood, tobacco, hides, cotton, and ſuch like. The ſugar-reeds did bear extremely well, becauſe they were tranſplanted into freſh grounds. Whilſt the diſtrict of Parayba was under our juriſdiction, there were above one and twenty ſugar-mills on both ſides of the banks of the river, eighteen of which ſent away every year four thouſand cheſts of ſugar. Near the river-ſide, the country is low and plain, but not far from thence riſes by degrees, and affords a very agreeable variety of hills and valleys. The flat country, which is alſo the moſt fertile, is diſtinguiſhed into ſeveral diviſions, ſome of which have borrowed their names from ſmall rivers which run through them; as for inſtance, Gramamma, Tapoa, Tibery, Ingeby, Monguappe, Increry, Kamaratuba, and ſeveral more. All thoſe countries are extremely fertile, occaſioned by the overflowing of the river Parayba. Their products are ſugar, barley, turkey-wheat, potatoes, ananas, cocoa-nuts, melons, oranges, citrons, bananas, pakovas, markomas, cucumbers, and all other neceſſaries for the ſuſtenance of men and beaſts. They have here a kind of wild pears, called kajous, which are very juicy and well taſted; within is a certain bean or ſmall nut, the rind of which is bitter, but the kernel ſweet if roaſted in the aſhes. The pear is very cooling, but the nut has a contrary quality.

Towards the end of November 1634, the Dutch undertook the expedition againſt Parayba, their forces being embarked in thirty-two ſhips under the command of Colonels Schoppe, Artisjoſki, Hinderſon, Stachouwer, and Carpentier. The whole fleet was divided into two ſquadrons, the firſt conſiſted of one and twenty ſhips, in which

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were nineteen hundred and forty-five men, the other of eleven yatchts, with four hundred and nine men. Schoppe was the firſt that landed ſix hundred men, and advanced towards the enemy, who betook themſelves to their heels, leaving their arms and clothes behind them; Anthony Albuquerque their general himſelf ſcarce eſcaping their hands. In the mean-while, the reſt being likewiſe got aſhore, three companies, under the conduct of Gaſper Ley, marched directly to the fort of Margaret, and intrenched himſelf near the fort, whilſt Schoppe kept all along the ſhore, and Artisjoſki poſted himſelf on the right-ſide, in ſight of the garriſon. At the ſame time Mr. Lichthart attacked the fort in the ſmall iſland Reſtinga, which he took by force, and put the garriſon to the ſword. By this time Schoppe had raiſed a battery againſt the fort, from whence he ſo ſorely galled the beſieged, that their commander Simon d'Albequerque ſurrendered the place. Hereupon the fort of St. Antonio was ſummoned to ſurrender; Maglianes the governor deſired three days delay, which being denied, he marched away ſecretly by night, leaving the place to Lichthart, who found there five great braſs pieces, and nineteen iron pieces of cannon.

The ſame night our forces marched towards the city of Parayba, being ſixteen hundred ſtrong, and having paſſed a ſmall branch of the river called Tambra Grande, made themſelves maſters of it without any oppoſition: the Spaniſh general Banjola, who commanded there with two hundred and fifty men only, having left the place before, and being retired to Goyana, after he had either ſunk or nailed up the cannon, and ſet fire to three ſhips and two warehouſes, in which were conſumed three thouſand cheſts with ſugar. The fort of St. Catharine being much decayed, was ordered by Count Maurice to be repaired, and the ditch to be enlarged and deepened; giving it the name of Margaret, after his ſiſter. The fort of St. Antonio was raſed for the greateſt part, there being only one bulwark left for the defence of the north point of the river. The fort Reſtinga was ordered to be ſurrounded with new palliſadoes, and the convent of Parayba fortified with a wall and outwork; and the command thereof given to Elias Harkman, together with the government of the whole captainſhip.

The captainſhip of Potigi, or Potingi or Poteingi, is otherwiſe, by the Portugueſe, called Rio Grande, from a river of the ſame name: the Dutch call it North Brazil, in reſpect of the more ſouthern captainſhips of Brazil. It borders to the ſouth upon Parayba, and to the north upon the captainſhip of Siara; though the Portugueſe geographers extended its bounds as far as the iſland Maranhaon.

The French were once maſters of this captainſhip; till 1597, they were chaſed from thence by the Spaniſh commander, Feliciano Creça de Karvalaſho. It has four diviſions, named after ſo many rivers, that run through them; viz. Kunhao, Goyana, Mompobu and Potegy. And though this diſtrict has been much neglected by the Portugueſe, yet does it produce plenty of wild-fowl and fiſh, which are ſo luſcious, that they commonly eat them only with lemon-juice or vinegar, without oil. There is an incredible number of fiſh in the lake Goraires; beſides which, abundance of farinha is planted here. This part of the country ſtood us in good ſtead during the late rebellion of the Portugueſe, our garriſons in Parayba, and other places, being ſupplied from thence with good ſtore of fleſh and fiſh.

Above the river Rio Grande is a town, of no great moment, called Amſterdam; the inhabitants live by planting farinha and tobacco, and fiſhing. Higher up in the country live ſome Moradores or huſbandmen, who cultivate the grounds; but on the north ſide of Rio Grande are but few inhabitants.

The river Rio Grande, i. e. the Great River, is ſo called by the Portugueſe from its bigneſs, but by the Brazilians, Potigi or Poteingi. The mouth of this river lies under

under 50° 42′ ſouthern latitude, three leagues from Punto Negro, coming from the weſt ſide of the continent. It diſembogues four leagues about the fort Keulen, called by the Portugueſe Tres Reyos: it bears ſhips of great burthen; but the river Kunhao in the ſame captainſhip is only navigable with barges and yachts. The bays of this captainſhip are, Bahia Formoſa, Punto Negro, Ponto de Pipas, and the bay of Martin Tiiſſen. The bay of Ginapabo lies beyond Rio Grande to the north; and beyond that a river called Guaſiavi, upon which, near the mouth, lies the village Atape Wappa. Near to the north you meet with the river Siria Mixui; and near the village of Natal, and the fort of Tres Reyos, paſſes a river called the Croſs River, which ariſes out of a ſmall lake in Rio Grande. Over-againſt the ſame fort, a freſh river falls into the great river, betwixt two land-banks, and not far from thence another ſalt-water river.

The fort Keulen was four-ſquare, built upon a rock or point of a receif, at ſome diſtance from the ſhore, at the mouth of the river Receif; being ſurrounded with water, as often as it is flowing water, ſo that at high tide there is no coming at it but with boats. In the midſt of this fort is a ſmall chapel, where in 1645 and 1646 our people found a wall about a foot and a half wide on the top, but at the bottom three foot, cut within a rock, which brings freſh ſupplies of good and ſweet water every tide; with an ordinary tide two hundred and twenty-five, and at ſpring-tide about three hundred and fifty quarts; which is more than ſufficient for the uſe of the garriſon, in caſe of a ſiege. The fort is built of ſquare ſtone; being towards the ſhore defended with two half baſtions, in form of hornworks. In the year 1646, there was an artillery of twenty-nine, as well braſs as iron pieces of cannon in the place, and provided with a good undervault, and convenient lodgments for the ſoldiers.

This fort was in 1633 taken by the Dutch, under the command of Matthias van Keulen, one of the governors of the company, who being aſſiſted by ſeveral noted captains, viz. Byma, Kloppenburg, Lichthart, Garſtman, and Mansfelt van Keulen, ſet ſail thither with eight hundred and eight men, embarked in four ſhips and ſeven yachts, and made himſelf maſter of it, and the whole captainſhip at the ſame time; ſince which it changed its name Tres Reyos into that of Keulen, from the commander-in-chief of this expedition.

The Tapoyers (or mountaineers) uſe commonly twice a-year, eſpecially when the dry ſeaſon puts them in want of freſh water, to make an inroad into this captainſhip; there being a conſtant enmity betwixt them and the Portugueſe. It happened in July 1645, that theſe Tapoyers being advertiſed that the Portugueſe intended to revolt from us, and had actually begun the ſame in Pernambuko, did, under the conduct of one of their leaders, called Jacob Rabbi, after ſeveral provocations given them by the Portugueſe, make an incurſion into Kunhao, where they killed thirty-ſix perſons in a ſugar-mill belonging to one Gonſalvo d'Olivera. From thence they marched to a certain place, where the Portugueſe had caſt up a line for their defence, which they made themſelves maſters of, and put the Portugueſe to the ſword. The Brazilians told us, that this had been done in requital of what had been done to ſome of thoſe mountaineers by one Andrew Vidal, in Serinhaim, after quarter given them before, of which we ſhall ſay more hereafter. Since which time, the Portugueſe have laid this tract deſolate, which the Dutch once had a mind to re-people, and to put it in the ſame condition as the Portugueſe had poſſeſſed it, but for want of people that deſign was fain to be laid aſide.

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The captainſhip of Siara is one of the moſt northerly diſtricts of Brazil, bordering upon Maranhoon to the north upon the river Siara. It is of no great extent, its whole compaſs being not above ten or twelve leagues.

The river Siara, which riſes deep in the continent, diſembogues about ſeven leagues and a half to the north of the bay Mangorypa, under three degrees forty minutes ſouthern latitude.

The native inhabitants of this captainſhip, according to the report of thoſe that have frequently viſited it, are very large of ſtature, with ugly features, long hair, and black ſkin; except the ſpace betwixt the eyes and mouth. They have holes in their ears, which hang downwards upon the ſhoulders; ſome make holes in their lips, ſome in their noſes, in which they wear ſtones as an ornament. Their food is farinha, wild fowls, fiſh, and fruit. They drink moſt water, but make likewiſe a certain liquor out of farinha; and of late began to be uſed to drink good ſtore of brandy, though it was expreſsly forbidden to bring it into the villages, to keep them from the exceſſive uſe of ſtrong liquors. The country produces ſugar-reeds, chryſtal, cotton, pearls, ſalt, and ſeveral other commodities. Amber-gris is alſo found on the ſea-ſhore.

The inland part of the country was in 1630 governed by one of their own Kings, called Algodoi; in ſome reſpect tributary to the Portugueſe, who had built a fort upon the river Siara, and made themſelves maſters of the whole ſea-coaſt thereabouts; notwithſtanding which they were in continual broils with one another, till 1638 this fort and the whole country was taken by the Dutch from the Portugueſe, in the following manner.

Count Maurice and the council being ſolicited by the natives of that country to make themſelves maſters of the Portugueſe fort on that ſide, and to deliver them from the oppreſſion they lay under at that time, they offering their aſſiſtance, and giving two young lads of their beſt families, as pledges of their fidelity, this condition was reſolved upon. The chief command over the troops deſigned for this exploit was conferred on Colonel John Garſtman, a man of more than ordinary conduct in martial affairs, though, as the caſe then ſtood, this enterpriſe was not likely to meet with any conſiderable difficulties; being aſſured of the aſſiſtance of the Brazilians, who bore an old hatred to the Portugueſe, and were acquainted with the ſtrength and condition both of their forces and places. Garſtman being provided with ſhips, men, ammunition, and all other neceſſaries requiſite for ſuch an expedition, ſet ſail towards the river Siara; where being met by the Algodoi, or King, with white enſigns in token of peace, and having landed his men, two hundred of the natives joined with them. With thoſe he marched directly to the fort, which after a brave reſiſtance from the Portugueſe, who killed ſome of his men, he took by ſtorm, and made moſt of the garriſon priſoners, among whom were ſome commanders of note. They found good ſtore of cannon and artillery in the place.

Since that time, the Dutch built a ſmall fort upon the Siara, unto which they gave likewiſe the name of Siara, which was provided with a garriſon of betwixt thirty and forty ſoldiers only; not ſo much for the defence of the country, as to maintain a good correſpondency with the Brazilians, who, being very numerous in thoſe parts, might do us conſiderable ſervice in time of war. It was upon this conſideration, that the great council always commanded their officers, ſent thither, to cultivate a good underſtanding with them; and at ſeveral times ſent them ſome ſmall preſents, which however proved ineffectual in the end, for in 1644 they attacked and killed ſeveral

of our men at Komefy, (a place about thirty leagues from Siara,) as we ſhall hear anon.

For the Brazilians being, in 1641, increaſed to ſuch a number in Siara, that the villages thereabouts were not able to contain them without great inconveniency, whereas the diſtrict of Rio Grande was almoſt deſtitute of inhabitants, and conſequently not in a condition to oppoſe an enemy; one Andrew Uliifs propoſed to the great council to build a village in Rio Grande, for the uſe of ſuch as intended to ſettle there out of Siara, deſiring to be conſtituted chief of the ſaid village. Count Maurice and the great council, being informed of the inclinations of thoſe of Siara, who were willing to ſettle in Rio Grande, their ancient place of abode, and conſidering the benefit that was likely to accrue to the company, from the ſettlement of thoſe Brazilians ſo near at hand, granted Uliifs's requeſt, wiſhing him to bring thither as many of the Brazilians of Siara as he thought convenient, for the compaſs of a village of which he was made chief or captain. Things being thus ſettled, they choſe, with the approbation of our directors, certain chiefs or heads out of the moſt ancient families of each diviſion, called Reſidoor by the Portugueſe, and certain judges; as for inſtance, in Goyana, Domingoi, Fernandes, and Karapeva; in Parayba, Peter Potty; and in Rio Grande, Antonio Perapeva. Notwithſtanding all this, the Brazilians of Siara revolted againſt the Dutch, in 1644 ſurpriſed the garriſon in the fort, which they raiſed, and killed the commander-in-chief, Gideon Morritz, with the whole garriſon, beſides all the workmen belonging to the ſalt-pits near the river Upanemma, who were all cut in pieces by theſe barbarians.

A certain maſter of a ſhip, with a captain, lieutenant, and ſome ſoldiers, who happened to come aſhore in a boat to fetch ſome freſh proviſions, being ignorant of their treachery, were alſo put to the ſlaughter, three ſeamen having the good fortune to eſcape with their lives into the wood.

Some laid the cauſe of this rebellion at the door of the Portugueſe and Brazilians of Maranhaon, bordering upon them; but if we ſearch into the true ſource of this evil, it muſt be attributed to the miſcarriage of our own officers, who, by their hard uſage, had forced the inhabitants to revenge themſelves for the injuries received at their hands.

Thus much concerning the captainſhips of the Dutch Brazil; we will, in the next place, give you an account of all the memorable tranſactions that happened betwixt the Dutch and Portugueſe in Brazil, during our ſtay there: after I have repreſented to you the excellency and convenient ſituation of this country, together with the eccleſiaſtical ſtate of the Dutch Brazil.

Brazil is a country excellently well qualified by nature for the producing of all things which are generally found in the Weſt Indies, under or near the ſame climate; except that hitherto no gold or ſilver mines have been diſcovered here worth taking notice of. But next to gold and ſilver, the ſugar claims the precedency here before all other commodities. Among all the harbours and places of the Weſt Indies, there is not one that can compare with Brazil, either for the product or conveniency of tranſportation of ſugar; the whole coaſt of Brazil being full of ſmall rivers, which, flowing through the adjacent valleys, diſembogues in the ſea; from whence the ſugar-mills, built in the valleys, reap the benefit of ſaving vaſt charges, which elſe muſt be beſtowed upon labourers and carriages; whereas theſe rivers drive the mills, ſerve for the tranſportation of ſugar to other places, and furniſh them at an eaſy rate with what commodities they ſtand in need of; all which conveniencies, as they are not to be met with in any other place of the Weſt Indies, ſo no ſugar-mills could be erected there

there with any proſpect of profit. The exportation of ſugar from Brazil into Europe and Africa is likewiſe performed with much more eaſe than from any other places in the Weſt Indies; for the ſituation of Brazil (being the moſt eaſtern part of all America) is ſuch, as could not be more conveniently contrived by human art or nature for the tranſportation of ſo general and agreeable a commodity as ſugar, into all the other parts of the world; conſidering thoſe two excellencies of Brazil, together with its vaſt extent, it is moſt certain, that, provided it were well peopled, it might command both the North and Ethiopian Seas, and ſpread its commerce over all parts of the world; nay, it might extend its conqueſts both to the eaſt and weſt, or at leaſt eſtabliſh factories there, for the conveniency of traffic. To prove which, it is to be obſerved:

That all Eaſt India ſhips, both going and coming, muſt paſs by the coaſt of Brazil; and as thoſe ſhips, in their voyages thither, are often forced to touch upon this coaſt, ſo in their return nothing could be more commodious for them, than to be ſupplied with freſh proviſions here. From Brazil you may ſail, in fourteen days, to the Caribbee Iſlands, and in the ſame time, or a little longer, to Sierra Leona, on the coaſt of Guinea. It is impoſſible to enter deep into the great South Sea, (whereabouts a great part of the terreſtrial globe remains as yet undiſcovered,) unleſs you take in freſh proviſions and firing in Brazil, or expoſe yourſelf to the greateſt hazards imaginable in ſo long a voyage, as is ſufficiently evident from the journals of Oliver Van North, Spilbergen, Le Maire, and John l'Heremite. And experience has taught us, ſince Mr. Brower's voyage to Chili, how eaſy the paſſage is betwixt Brazil and the South Sea; for he loſt not ſo much as one ſhip out of four, and very few died in the whole voyage.

Brazil enjoys likewiſe the advantage of a very wholeſome climate; for though it lies betwixt the equinoctial line and the tropic of Capricorn, and conſequently is ſubject to burning heats, yet are the ſame much allayed by the winds, that blow out of the eaſt from the ſea, their free paſſage being not interrupted by any mountains or iſlands; which is the reaſon, that in Brazil the ſame diſtempers are rarely to be met with, which reign ſo frequently in Angola, Guinea, St. Thomas, and ſeveral other places, where the eaſt winds cannot afford them the ſame advantage. A plague is a thing unknown in Brazil, in which it excels all other countries; though they are not free from continual putrid fevers, cauſed by the hot and moiſt air, and the exceſſive uſe of raw fruits.

Thoſe that are bound for the coaſt of Brazil, ought to have a ſpecial regard to the ſeaſon of the year, which regulates the winds and ſtream thereabouts; and to be very careful to ſail above the harbour whither they are bound; for if they miſs, and come below it, they loſe their aim, and muſt ſtay till the next turn of the wind and ſtream. For it is obſervable, that on the coaſt of Brazil, the ſtream runs from February till paſt July, conſtantly northerly, during which time there is no paſſing from the north to the ſouth; but after thoſe months are paſt, the ſtream turns, and from the beginning of September to the latter end of November runs as violently to the ſouth as it did to the north before, and conſequently there is no ſailing from the north to the ſouth, no more than before from the ſouth to the north. The winds here turn with the ſtream; and at the beginning of March, blow ſouth-ſouth-eaſt, and ſouth-eaſt. And like as the ſtream changes its current till September, ſo the winds continue in the eaſt, and blow till that time out of the eaſt-ſouth-eaſt. For there are but two winds that reign along this coaſt, viz. the ſouth-eaſt and north-eaſt winds; according to which, ſhips muſt regulate their courſe here.

The eccleſiaſtical ſtate of the Dutch Brazil was, in my time, thus ordered:

Before the inſurrection of the Portugueſe, there were, to the ſouth of the Receif, five Proteſtant churches; viz. in Rio St. Franciſco, Porto Calvo, Serinhaim, the cape St. Auſtin, and St. Anthony; though theſe were ſeldom altogether provided with miniſters, becauſe that ſome or other of them returned into Holland after their limited time was expired. In the iſle of Tamarika and fort Orange, was at that time a miniſter, one John Offringo, who lived formerly in the town of Schoppe, and at the ſame time preached in the church of Igaraſſu, which was afterwards left by the Dutch and poſſeſſed by the Portugueſe. In Rio Grande preached one John Theodore Polheim. In Parayba were formerly two miniſters, whilſt the town of Frederica was as yet under the Dutch juriſdiction, but after the revolt of the Portugueſe, the place was left by the inhabitants, and Henry Harman was the only miniſter in thoſe parts. In the Receif, Maurice's Town, and the circumjacent forts, which contained about four hundred Proteſtants, Dutch, French, and Engliſh, were three miniſters, who preached in the Dutch tongue; Nicholas Vogel, Peter Ongena, and Peter Grib. Beſides theſe there was a fourth, called Jodocus Aſtett, who formerly had been miniſter of the cape of St. Auſtin, but now was employed either aboard our fleet, or upon any land expedition. The French church here remained without a miniſter, after the departure of Joachim Solaer, ſo that they were forced to be contented with reading of certain chapters of the bible, and prayers every Sunday morning. The Engliſh miniſter was one Samuel Batchelour, who, in 1646, returned likewiſe to England; about which time there were ſeven Dutch miniſters in the Dutch Brazil. Our religious worſhip was, both in its doctrine and practice, regulated exactly according to the preſcription of the ſynod of Dort, and peculiar care was taken for the education of the youth, for which purpoſe the catechiſm was every Sunday in the afternoon explained, both in the Receif and Maurice's Town. Four times in the year the holy ſacrament was adminiſtered, thoſe who deſired to be partakers of it, being obliged to make their confeſſions before the church-council, or the miniſters, who entered their names in a book; and if they came from abroad, publiſhed their names to the congregation; and in all other reſpects the church-diſcipline was carefully obſerved. The church-council was compoſed of ſix church-wardens, beſides the miniſter; theſe met duly once a week, and if any buſineſs of moment happened, ſuch as chuſing a miniſter, &c. they called the deacons, who were likewiſe ſix in number, to their aſſiſtance. Out of the deacons were every month choſen two, who (beſides their ordinary buſineſs) were to viſit the ſick and wounded, and to provide for them if neceſſity required. They alſo took care of the orphans, to have them inſtructed in reading and writing. In the ſame manner the other churches were regulated, with this difference only, that the number of church-wardens and deacons was leſs, in proportion to the number of their reſpective congregations. Thus much of the eccleſiaſtical ſtate.

Beſides thoſe living creatures we have given you a deſcription of before, there are divers ſorts of bees in Brazil, called Eirukus, which ſettle upon the trees in a moſt ſurpriſing manner. They are not unlike our bees, but ſomewhat ſmaller, and ſwarm chiefly among the woods. The Brazilians diſtinguiſh them into twelve different kinds, viz. Amanakay Miri, Amanakay Veu, Aibu, Mumbuka, Pixuna, Urutuetra, Tubuna, Tujuba, Eiruku, Eixu, Kubiara, and Kurupireira; the laſt of which are in no eſteem among them.

The bees Eiruku are the largeſt of all, and produce a very good honey, though it is not commonly uſed. They make their combs within the hollowneſs of trees, which the Brazilians draw from thence by means of a hollow pipe. The bees called Eiku and

Kopy are ſmaller and of a blackiſh colour; they make holes from without, in the bark of the trees, in the nature of bee-hives, and the comb within is all of white wax; this is now counted the beſt thing, but is not gathered in the ſame quantity as the former; beſides that, theſe bees ſting very furiouſly. The bees Thanbuka are likewiſe ſmall, of a yellowiſh colour; they fix their combs on the top of the higheſt trees, and afford the beſt honey, which is in great quantities tranſported from hence to Europe, where it is ſold very cheap. It is little inferior in goodneſs to the European honey, and of a good ſubſtance, tranſparent, and of an agreeable ſcent. It is accounted very balſamic, corrects the ſharp humours in the inteſtines, and eſpecially in the kidneys, and provokes urine. They make of this honey metheglin, which is very ſtrong, and will keep a great while: you may alſo make meath of this honey without boiling, only mixed with ſome ſpring water, and expoſed to the weather.

Brazil produces likewiſe ſeveral ſorts of balſams, the beſt of which is called by the Brazilians Kopaiba, from the trees from whence it comes. Kopaiba is a very high wild tree, with an aſh-coloured bark, which ſpreads at the top into many branches. The leaves are about half a foot long, ſometimes larger, ſometimes leſſer, which in the midſt of the branches ſtand oppoſite to one another, but on the end like other leaves. At the end of the great branches are abundance of leſſer ſprouts full of leaves, out of which comes forth the bloſſom, and afterwards berries, not unlike our laurel-berries. They are green at firſt, but as they ripen turn black and ſweet. Within is a round hard ſtone, the kernel of which is white, but mealy, and not fit to be eaten. The berries ripen in June, when the Brazilians ſuck the juice out of them, and throw away the ſtone and ſkin. The apes take great delight in this fruit.

The oily and odoriferous balſam, in which this tree abounds, drops every full moon, provided you cut a ſlit through the bark as deep as to the pith, in ſuch quantity, that in three hours time you may gather above twelve mengeln. But if that does not drop immediately, the ſlit is made up with wax, and within fourteen days they are ſure the balſam will come in great quantity. This tree does not grow ſo plentifully in the captainſhip of Pernambuko as in the iſle Maranhaon, from whence this balſam is tranſported into Europe. The balſam is hot in the ſecond degree, of a thick, oleaginous, and reſinous ſubſtance. It is very ſtomachic, and a good remedy againſt the cholic occaſioned by cold, externally applied to the affected parts; ſome few drops taken inwardly ſtrengthen the bowels, and ſtop the overflowing in women, the looſeneſs, and involuntary emiſſion of ſeed in men; againſt which diſtempers it likewiſe is uſed in clyſters, or by ſyringing. Thus far concerning the Dutch Brazil; we will now proceed to give you an account of what paſſed during our abode there.

In the year 1640, Mr. Henry Hamel, one of the directors of the Weſt India company for the chamber of Amſterdam, and Mr. Dirck Kodde Vander Burgh (both perſons excellently well qualified for the management of the Dutch Brazil, and of great experience in affairs of commerce), were, at the requeſt of the council of Nineteen, ſent to Brazil, and arriving there on the 8th of Auguſt, the two preceding directors or counſellors, Matthias Van Keulen and John Giiſeling, reſigned their places to them, and with them the chief management of the Dutch Brazil, under the government of John Maurice Count Naſſau.

At the time of their arrival in Brazil there were under the juriſdiction of the ſtates the following captainſhips: Pernambuko, Itamarika (unto which belongs Goyana), Parayba, Rio Grande, and Siara, being the northern part of Brazil: the ſouthern part, which contained the captainſhips, Bahia, Ileos, Porto Securo, Spirito Santo, Rio Janeiro, and St. Vincent, remained under the Portugueſe, who inhabited the country as far

far as Rio de la Plate. Not many months after, the iſland of Maranhaon was joined with the Dutch Brazil, but the charges we were fain to be at to defend it againſt the Portugueſe, thoſe of Para and the natives, which over-balancing the profit the company was likely to reap from thence, it was thought moſt expedient to quit the ſame, which was done accordingly in the year 1644; or rather, to confeſs the truth, by the combination of the Portugueſe, thoſe of Grand Para and the natives, we were forced to abandon it.

Before the arrival of thoſe new directors, a fleet had been ſent to the Bahia to land ſome men there, and to deſtroy all with fire and ſword; which, after they had put in execution, and returned to the Receif, the ſame fleet, under the command of Admiral Jol and Cornelius Lichthart, was, by ſpecial command from the council of Nineteen in Holland, ordered to the Weſt Indies to lie in wait for the Spaniſh plate fleet of Terra Fiuma and New Spain; but they returned without doing any thing, in December 1640, having loſt four or five ſhips in this voyage. Colonel Koin was much about the ſame time ſent with a body of ſoldiers into the captainſhip of Rio Real, to bridle the Portugueſe, by making a diverſion in their own territories, but thoſe troops being but indifferently ſupplied with neceſſaries in an enemy's country, and forced to undergo great fatigues, they were ſo much weakened, that it was thought adviſeable to recal them out of Rio Real, and to aſſign them quarters of refreſhment in the garriſons. Major Van Brande had worſe ſucceſs than all the reſt; for, being ſent abroad with a party to fetch in ſome cattle, was put to the rout, and he himſelf taken priſoner.

In the mean-while that our whole fleet was waiting for the Spaniſh plate fleet on the coaſt of America, and we conſequently were not in a condition to undertake any thing at ſea, our directors had all the reaſon in the world to fear, that the Portugueſe would take this opportunity to revenge their loſs by deſtroying our ſugar-mills, which made them leave no ſtone unturned to ſecure the Dutch Brazil and its inhabitants againſt the attempts of the enemy: and conſidering that a great part of our ſecurity depended on the good inclinations of the Portugueſe living among us, it was thought convenient to call an aſſembly of the chiefeſt Portugueſe inhabitants of the three captainſhips of Pernambuko, Itamarika, and Parayba, towards the latter end of Auguſt, to concert meaſures how to defend their ſugar-mills and fields againſt the incurſions of the enemy.

The moſt effectual means that could be pitched upon in this aſſembly were, to provide their forts with good garriſons on the borders, and to ſecure the ſugar-mills, by putting a certain number of ſoldiers in or near them, for the ſecurity of the adjacent fields. This was put in execution accordingly; and the officers had ſtrict charge to keep a watchful eye upon the leaſt motion of the Portugueſe; notwithſtanding which, it had not the deſired effect, becauſe thoſe Portugueſe who lived at a conſiderable diſtance from us, and near the enemy's frontiers, durſt not give timely notice of their approach; beſides that, many among them having a conſtant hatred to our nation, did favour the enterpriſes of thoſe parties that burnt the ſugar-fields and plundered the mills, ſerved them ſometimes for guides, and had their ſhare in the booty, which obliged our people to be at a conſtant charge of a ſtrong guard to conduct their goods, and defend them againſt any ſudden attempts. Such an incurſion was not long after made by the Portugueſe into our territories; for in November the viceroy, the Marquis of Montelvano, ſent two barges full of ſoldiers to burn our ſugar-reeds in the plains, which they effected, but durſt not go too far, or attempt any thing againſt our mills, for fear of the ſoldiers quartered thereabouts, who could not prevent their burning in the fields, as being done in the night-time. The Dutch were the greateſt loſers by it, becauſe they had generally the greateſt ſhare in thoſe fields and mills, beſides that the Portugueſe ſpared thoſe of their

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own countrymen; all which brought a great damp upon trade, every one being afraid to venture in any buſineſs, where he might loſe all his ſubſtance in one night, and that perhaps by the hand of a ſingle perſon, whereby the revenues of the company were greatly impaired, and their charges increaſed, being forced to maintain twenty or thirty ſoldiers for the defence of any conſiderable plantation or ſugar-mills; which prevented them from bringing a ſufficient body of men into the field, to make head againſt the enemy. This was the ſtate of the Dutch Brazil towards the latter end of 1640.

The 22d of December, in the ſame year, Mr. Adrian van Bulleſtraete arrived at the Receif from Middleburgh, in the quality of director of Brazil, ſo that, now the great council being complete, the beſt expedient to obviate all theſe difficulties, was judged to conſiſt in our fleet; purſuant to this reſolution, all our ſhips were ordered to the Bahia, to make the enemy ſenſible that we were in a condition to be even with them, and thereby to facilitate the negociation that was in hand, for the ſurceaſing of burning on both ſides. The council of Nineteen having alſo ſent expreſs orders to cruiſe with ſome ſhips before Rio Janeiro, from whence the Spaniſh ſhips uſed generally to return into Spain, about the month of May or June, ſome of the biggeſt ſhips were ordered that way, to intercept, if poſſible, the flota, the reſt being left near the Bahia.

But whilſt our commiſſioners were treating with the viceroy about the ſurceaſing of burning and plundering, a certain Portugueſe, Paulo de Kunha by name, committed unheard-of cruelties, with murdering, plundering, and burning, in the open country, which made Count Maurice write the following letter to the viceroy:—

Count Maurice's Letter to the Viceroy.

"The barbarities lately committed by Paule de Kunha, with burning, murdering, and plundering, in the open country, give me great reaſon to fear, that your laſt obliging letter was deſigned for a compliment, without any reality. The confidence I had in your excellency's ſincerity made me recal our ſhips and forces from your territories, to take away all means of offence: but the long ſtay of our deputies affords great occaſion of ſuſpicion, that your intention is only to amuſe us; which has obliged me to diſpatch a veſſel to let them know, that in caſe the treaty is not brought to a concluſion, to return without delay; it being our intention that the ſaid negotiation ſhould not be continued longer. Your Excellency will therefore diſmiſs them, together with our two hoſtages, as we are reſolved to ſend back to you Martin Feirara, left with us as a hoſtage from your excellency, his companion being dead of late."

Hereupon, by the mediation of the clergy living under our juriſdiction, but eſpecially by the indefatigable care of Dirck Kodde Vander Burgh, who was ſent thither for that purpoſe, the treaty was brought to a happy concluſion in February 1641, by virtue of which, all deſtructions by burning and plundering were to ſurceaſe on both ſides; which being publiſhed by proclamation, the Portugueſe were ordered to quit our dominions, whereby we reaped this advantage, that now we might turn all our forces where we found it moſt expedient.

In June 1641, Count Maurice and the great council received advice of the ten years' truce concluded betwixt the States of Holland and the King of Portugal, with all the articles thereunto belonging, which were publiſhed by proclamation in all our captainſhips, and all acts of hoſtilities ceaſed on both ſides; the Dutch living in good underſtanding with the inhabitants of the Bahia, giving them all the demonſtrations of friendſhip

ſhip, ſufficient to convince the Portugueſe that they had not the leaſt reaſon to fear any infraction on their ſide.

The great council being willing to improve this interval of peace for the advancement of traffic, and the benefit of the company, gave all imaginable encouragement, in proportion to the circumſtances of time and place, to all the inhabitants of what nation ſoever, for the eultivating the lands, which had this good effect, that the maſters of the ſugar-mills rebuilt their mills, and the huſbandmen betook themſelves with ſo much eagerneſs to the cultivating of their ſugar-fields, that they borrowed conſiderable ſums, upon a proſpect of ſure gain, which would over-pay their debts; as, without queſtion, it would have done in a ſhort time, if, by the treachery of the Portugueſe, they had not been diſappointed in their hopes. The next thing to be taken in hand, was, to make ſuch wholeſome laws as were thought moſt expedient for the eſtabliſhment and increaſe of commerce, both in the Receif and other places, and to improve the domains and other revenues belonging to the company, during this time of truce.

Trade then began to flouriſh apace, ſo that ſome time after the truce, the merchants and factors ſold more commodities than had ever been known either before or ſince. Many millions were dealt for in a little time, the merchants and factors being contented to ſell to thoſe who would pay ſome money in part, though there were buyers enough who would and could buy for ready caſh.

The finances of the company in Brazil were in ſo good a ſtate, by the extraordinary care of the great council, that, in 1040 and 1641, they bought conſiderable quantities of ſugar upon the public account, which they ſent to Holland. In the Receif and Maurice's Town, we ſaw ſeveral goodly ſtructures erected by the inhabitants, who lived in great plenty and magnificence, every one looking upon his debts as ſecure, and having a fair proſpect to increaſe his riches, by the flouriſhing ſtate of commerce and improvement of the lands.

But this was of no long continuance, for, in the beginning of 1643, things began to appear with a quite different face; for the magazines of the company being exhauſted by ſeveral expeditions againſt Angola, &c. and having received no ſupplies in their ſtead out of Holland, as they uſed to do before, the great council was obliged to make uſe of what was due to the company, for the payment of the garriſons and other officers, and, conſequently, to force their debtors to prompt payments.

For at the beginning of the government of the new directors, the company had a conſiderable naval force upon the coaſt of Brazil, their magazines were well provided with proviſion and ammunition, and they maintained a good number of ſoldiers. The great council of the Dutch Brazil relying upon their ſtrength, did, with conſent of Count Maurice, ſend, in 1641, ſeveral fleets with ſoldiers to Spirito Santa, Rio de Janeiro, the iſle of Maranhaon, Angola, St. Thomas, and other places thereabouts, to attack the ſame, which ſucceeded according to expectation; but their magazines were greatly exhauſted by thoſe expeditions. Beſides this, the merchants in Holland began to call upon their ſervants and factors for conſiderable ſums of money, in return of what they had received from them; who being obliged to ſend all the money they could bring together from their creditors to their maſters in Holland; this occaſioned great ſcarcity of ready-money, and, conſequently, no ſmall detriment in traffic, which continuing thus from time to time, there aroſe ſuch a general ſcarcity of money as is ſcarce to be imagined; many of the maſters of the ſugar-mills, that had no ready money to ſatisfy their debts at the appointed time, being forced to take up money upon credit, and to pay three or four per cent. per month, which reduced many of them to

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ſuch an extremity in a little time, that they were neither able to pay the principal nor intereſt.

Upon the arrival of the three new directors, or members of the great council, in 1640, viz. Henry Hamel, Kodde, and Bulleſtraet, they found that the inhabitants, but eſpecially the Portugueſe of the Dutch Brazil, by buying of ſugar-mills and plantations, as well as negroes and other commodities, had run themſelves much in debt; having bought their negroes not only at three hundred pieces of eight per head, but alſo given moſt extravagant prices for all other ſorts of commodities, and purchaſed whole warehouſes, without making a juſt account how to be able to pay for them. This was done by the Portugueſe, in hopes of the good ſucceſs of thoſe great fleets they underſtood were equipping in Spain, to reduce Brazil under the King's obedience, which they ſuppoſed would free them from their debts; which the factors not being aware of, and, blinded with the proſpect of vaſt profit, ſold their goods to the Portugueſe without reluctancy. But the deſign of the Portugueſe vaniſhing into ſmoke for that time, they were forced to pay; but new ſupplies of all ſorts of commodities being ſent out of Holland, they bought on a-freſh, heaping debts upon debts, till, failing in their payments, their credit began alſo to fail with the merchants, who now began to urge for ſatisfaction of their debts. For the country-trader being urged by the factors and merchants, who received thoſe commodities from their correſpondents in Holland, was obliged to call to an account the Portugueſe unto whom he had ſold the goods. And becauſe the Portugueſe had not bought thoſe commodities from the Dutch, but with an intention never to pay them, the country-trader, who was obliged to pay the merchants in the Receif, ſaw himſelf reduced to ruin, the Portugueſe having not wherewithal to ſatisfy their debts.

Thus, through the unwarineſs and miſmanagement of thoſe factors, whom the merchants in Holland had intruſted with their goods, ſuch a confuſion was introduced, as tended to the great detriment of their correſpondents in Holland. All the buſineſs at that time lay among the lawyers, and in the courts of judicature, which, conſidering the chargeableneſs of law-ſuits in Brazil, tended to their farther ruin; for when they had obtained ſentence and execution againſt the debtors, the greateſt difficulty was, how, and which way, to lay the execution; moſt of the Portugueſe ſueing for protection from the Regency, which, if they could not obtain, they lived incognito; eſpecially thoſe who had no lands or effects, or if they had, it was no eaſy matter to find out where they were. Beſides that, if the creditors executed their executions upon the lands, they were forced to be the buyers themſelves, and to live in the country to manage the lands, a thing altogether inconvenient to the merchants, who had other buſineſs upon their hands in the Receif. Such as were caſt into priſon muſt be maintained there at the charge of the creditor, which, in proceſs of time, amounted to ſuch a ſum, that they themſelves were fain to ſolicit the releaſement of their debtors, and to make the beſt compoſition with them they could.

Beſides theſe inconveniences, there have happened of late ſeveral others, viz. a great mortality of the negroes and Brazilians, by a certain infectious diſtemper, incident to the natives, called Bexigos, reſembling our ſmall-pox in Europe. Moſt of theſe negroes were bought at the rate of three hundred pieces of eight, and, conſequently, their loſs drew after it the ruin of the planters, who alſo complained much of vermin, and ſeveral inundations that had done conſiderable damage to the ſugar-fields. This confuſion in traffic introduced no ſmall broils among the inhabitants themſelves, who, in caſe of non-payment, threw one another into priſon without mercy, and endeavoured to prevent one another by clandeſtine means, to get in their debts before the reſt;

offering conſiderable abatements and rewards to ſuch as would underhand ſurrender or tranſport their effects; and thoſe diviſions were not a little fomented by ſome ill-minded perſons, to the prejudice of the government; many of thoſe, who, either by unwarineſs or other miſmanagement, loſt their debts, laying the fault thereof at the door of the Regency and of the courts of juſtice, vainly imagining, that what they had loſt by their own neglect or want of care, ſhould be made good by the public purſe; eſpecially if it happened ſo, that the ſame perſons were indebted to the company as well as private perſons, there ariſe great conteſts about the preference.

The debts of the company did alſo increaſe every day, which at laſt amounted to ſome millions: for the directors, which before the year 1640 had the management of affairs in Brazil, did ſell moſt of the confiſcated eſtates, ſugar-mills, and merchandizes, as well as the negroes bought on account of the company in Africk, upon credit, ſo that their books were filled with debts, but their caſh empty of money. The ſucceeding members of the great council, Meſſrs. Hamel, Bulleſtraet, and Kodde, did leave no ſtone unturned to correct this cuſtom, and to ſell their commodities for ready money, or otherwiſe to exchange them for ſugars, thereby to eaſe the company in the great charge they were forced to be at in their ſeveral expeditions; and it is certain, that in 1640, 1641, and 1642, they ſent ſuch vaſt cargoes of ſugar to Holland, that the like had never been known before in Brazil. Notwithſtanding which, by the vaſt numbers of negroes that were imported, after our conqueſt of Angola, the company fell more and more in debt, by reaſon their debtors were very dilatory in their payments. The council of Nineteen ſent expreſs orders to remedy this evil, by ſelling the negroes for ready money, or exchanging them for ſugar; but this could not be put in practice, becauſe there was nobody who would buy upon thoſe conditions, ſo that the price of the negroes falling daily lower and lower, and theſe being a great burden to the company, and ſubject to diſtempers and mortality, this order was fain to be revoked, unleſs they would ſee the negro-trade dwindle away into nothing; for the inhabitants being for the moſt part ſuch as had beſtowed moſt part of their ſubſtance in the ſugar-mills, plantations, and negroes, they could not pay ready money, but were forced to deal upon credit, till they could reap the benefit of their labour.

The members of the great council did therefore take all imaginable care to call upon their debtors exactly at the time of their ſugar-harveſt, and ordered their officers in the country to ſeize upon ſome of them on account of the company.

From hence aroſe nothing but law-ſuits, ſentences, executions, and impriſonments: the members of the great council thinking it not below their ſtation, to go ſometimes in perſon into the country to promote the payment of the debts owing to the company. But this had a contrary effect, for the merchants and factors began to be extremely diſſatisfied, that the company ſhould ſeize upon the ſugar in the mills, without letting them, who were creditors as well as they, have their ſhare in them. This occaſioned not only murmurings, but alſo threats and complaints to the council of Nineteen, where they miſrepreſented theſe tranſactions under the worſt colours they could, hoping thereby to deter the officers of the company from doing their duty. The great council having taken the matter into mature deliberation, and fearing, not without reaſon, that in time it might occaſion a general diſcontent, they left no ſtone unturned to ſatisfy the minds of the people, by finding out means to have their debts ſatisfied. It was propoſed by ſeveral underſtanding perſons, that the company ſhould undertake to ſatisfy the debts of private perſons, either by way of payment or exchange; in lieu of which the maſters of the ſugar-mills ſhould ſurrender to the company every year, the whole product of theſe mills, till they had ſatisfied all their debts. And to make the ſame the more effectual,

for the general benefit as well of the company and ſugar-mills, as the merchants and factors, it was agreed, that certain articles ſhould be agreed upon for that purpoſe; the greateſt advantage the company pretended to reap by it being, that they ſhould have a fair opportunity of recovering ſome of their debts, which were given over for loſt. Theſe agreements were wonderfully pleaſing to the council of Nineteen, who in the year 1645, on the 16th of June, ſent their approbation of a ſecond agreement made with one George Homo Pinto (which indeed was of as great conſequence as all the other contracts together) to the great council as follows:

Approbation of the Agreement.

"Concerning the agreement by you (meaning the council) on the 14th of December laſt, made with George Homo Pinto, we have had ſeveral debates, which we find to have been brought to a concluſion, with the previous advice and approbation of the counſellors of juſtice and of the finances; ſo that both in reſpect of the ſame, and of the great benefit that is likely to accrue thereby to the company, we have thought fit to approve of the ſaid agreement; recommending to you the execution of it, with the ſame zeal as you have ſhewn your conduct and circumſpection in the whole management of theſe contracts."

That theſe agreements were by all people, that had any knowledge of thoſe affairs, looked upon as greatly for the intereſt of the company, is moſt evident from hence, that ſeveral other merchants that were ſenſible of this advantage, made agreements with their debtors much upon the ſame terms as the company had done; which, that it may be put beyond all doubt, we will give you a copy of one of thoſe agreements, from whence it will plainly appear with how much circumſpection the council proceeded in this matter, betwixt the company, the maſters of the ſugar-mills, and their debtors.

The Copy of an Agreement.

"Mr. Peter John Bas, and John van Ratsfield, counſellors of juſtice of Brazil, by ſpecial commiſſion from the Weſt-India company, and John van Walbeeck, aſſeſſor of the great council, did appear before us on one ſide; and Manuel Fernando Cruz, Sieur de Ingenho Tapicura, in behalf of himſelf and his heirs; as alſo Benjamin de Pina for ten thouſand ſix hundred gilders; Iſaac de Coſta for thirteen thouſand one hundred and eight; Joſeph Abenacar for four hundred and ninety; Simon de Vale for three hundred and twenty-five; Gaſper Franciſco and David Brandoa for eleven hundred and thirty-three; Abraham de Tovaer for one thouſand; John Parente for three hundred and fifty; John Mendonça de Moeribeca for four thouſand three hundred and fifty; James Gabay for one thouſand and fifty; More de Leon for ſix hundred; Balthazar de Fonſeca for ſix hundred; Simon Gomes de Liſboa for five thouſand nine hundred and ten; Bartholomew Rodrigues for nine hundred; and Daniel Cardoſa for nine hundred and ten gilders; the whole amounting to forty thouſand five hundred and twenty-ſix gilders, being all creditors of the ſaid Manuel Fernando Cruz, and for the moſt part debtors to the company on the other ſide, who profeſs and declare to have agreed among themſelves, that the before-mentioned Manuel Fernando Cruz, ſhall pay to the company the full ſum of ſixty thouſand ſeven hundred and ninety-five gilders, viz. nineteen thouſand two hundred and ſixty nine gilders upon his own account, being by him owing to the ſaid company, and the remaining ſum on the account of his credi-

tors, which, proportionably to their reſpective debts, ought to be diſcounted for with him by the ſaid company, upon the following conditions:

" 1. That the whole debt is to be ſatisfied in the three next following years, the firſt payment to begin in January 1645, and if it happen, that in one year a leſs ſhare be paid than in the other, the whole is to be made good in the laſt year.

" 2. That no diſcounts ſhall be entered in the books of the company, until after the payment of the due proportion appointed for each reſpective term of time.

" 3. That the creditors of thoſe with whom they have entered into articles of agreement, as well as the debtors of the company, ſhall not be diſcharged of their debts in the books of the company, but in caſe of failure or delay of payment, either of the whole ſum or part thereof, all the reſpective appointed times, ſhall ſtand engaged and anſwerable, each for his reſpective debt, unleſs they give other ſecurity to the company; but thoſe creditors who have no debts in the books of the company, ſhall have liberty to transfer other debts, or elſe to receive their ſhare in two years time, either by aſſignments or in negroes; but not in any commodities imported from abroad, or ſugar to be exported; provided nevertheleſs that the articles of agreement be fulfilled, or otherwiſe the ſum be put to their own account immediately, in which caſe they are to allow eighteen pound per cent. and nevertheleſs be liable to ſee the agreement put in execution.

" 4. Thoſe who are entered into articles of agreement ſhall be obliged to engage both their body and goods for the performance thereof, but eſpecially to deliver an inventory of their perſonal eſtates, confirmed by oath; beſides which, they are to give ſuch ſecurities as ſhall be approved of by the great council; with renouncing the *beneficium ordinis, diviſionis, et excuſationis*, as well for each reſpective payment at the appointed times, as the whole ſum in general.

" 5. Theſe before-mentioned ſecurities are to be perſons well-qualified, of good ſubſtance, not involved in debts, but eſpecially in the company's; and ſhall be warranted by the magiſtrates of their reſpective places of abode.

" 6. Public notice is to be given to all perſons who have any bonds, bills or accounts, or other engagements relating to the perſonal eſtates (which ſhall be named or ſpecified), of ſuch as are entered into thoſe articles, that within the ſpace of three weeks they are to produce the ſame, or elſe be excluded from the benefit thereof, till after the expiration of the time mentioned and appointed in the ſaid agreement.

" 7. That he who has engaged himſelf in ſuch an agreement or contract, ſhall not be permitted to contract new debts, unleſs with the conſent of the great council; otherwiſe the ſame to be void and null, of which public notice ſhall be given. Neither ſhall he abalienate any ſugars by land as remains, under the penalty of reſtitution to be made with full intereſt and charges.

" The creditors ſhall be obliged to ſurrender and renounce all their pretenſions, engagements, and actions, to the company; neither ſhall they lay any claim upon that ſcore of precedence, or otherwiſe.

" Whenever it ſhall be judged requiſite, by the great council, to ſend a certain perſon to the Ingenho of any perſon entered into ſuch an agreement, for the better ſecurity of their debt, and the receiving and ſending away the ſugar allotted to the company, he ſhall be obliged to find him with victuals and lodgings in his Ingenho; but the company ſhall pay him for his pains.

" Purſuant to which, the before-named Manuel Fernando Cruz, with the advice and conſent of his before-mentioned creditors, has obliged himſelf in general, and by theſe preſents, obliges and engages his perſon and eſtate, both real and perſonal, without any reſervation or exception; but eſpecially the before-named Ingenho Tapicura;

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with all its appurtenances, according to the inventory there affixed and confirmed by oath; which Ingenho Tapicura he declares to be free from any pre-engagements, with all the grounds, ſugar-fields, paſturages, woods, and other things thereunto belonging, viz. eight braſs calderns, ten tachoos, and ten parvos, beſides ſeveral other copper veſſels belonging to the ſaid Ingenho; twenty ſlaves belonging to the ſaid Ingenho, and Manuel Fernando Cruz, his houſe and ſixty oxen. And for the better performance of this agreement, Senhor John de Mendoſe, dwelling at Moeribeca, and Manuel Gomes de Liſboa, living in Moquiaxe, have, after certificates obtained from the magiſtrates of their reſpective dwelling-places, engaged themſelves, and do by theſe preſents engage themſelves as ſecurities for the whole debt, and as debtors for each and every part thereof, promiſing to indemnify the company of all actions, ſuits, or other pretenſions which may be made againſt them on account of any other creditors of the ſaid Manuel Fernando Cruz, not mentioned or engaged in this agreement; as likewiſe, that no ſugar ſhall be ſurreptitiouſly conveyed away or abalienated: that in caſe of non-payment, the company ſhall be hereby fully empowered to recover their damages with intereſt and charges, upon their perſons and eſtates; they renouncing by theſe preſents all exceptions, *ordinis*, *diviſionis*, *et excuſationis*, as likewiſe all other pretenſions of privileges tending to the invalidity of this contract. The before-named creditors alſo, in general, and every one of them in particular, declare that they have given in a true account of all their reſpective pretenſions upon the ſaid Manuel Fernando Cruz, neither that they do demand any other ſum or ſums of him, but what have been ſpecified there under their reſpective names; promiſing to be well ſatisfied with what has been ſtipulated, and, if put in execution accordingly, to renounce all actions or private engagements, diſcontents or preference in favour of the company; and that in caſe of non-payment, they will be obliged to make good and reſtore to the ſaid company, not only each particular ſum paid at certain limited times, but alſo the whole, in the ſame manner, as if the ſaid agreement had never been made betwixt them; leaving it to the diſcretion of the company, whether they will lay their actions againſt Manuel Fernando Cruz and his ſecurities, or againſt themſelves and their eſtates; under the condition they were in before the concluſion of this agreement; the benefit of *actionem ceſſam* being allowed them againſt the ſaid Cruz and his ſecurities, for the recovery of their juſt debts. In witneſs and confirmation of which we have granted theſe our letters, as uſual in ſuch caſes, ſealed with the ordinary ſeal of the court of juſtice, and ſigned by the ſecretary of the council. Tranſlated in the Receif, 23d September 1644."

In the ſame manner all the other contracts were made and penned; the contents of which amounted, in the whole, to two million one hundred and twenty-five thouſand eight hundred and ſeven gilders, which were due from the farmers to the maſters of the ſugar-mills, and from thoſe again to the company.

The chief, if not the only reaſon, why theſe agreements were reſolved upon, was, (as we ſaid before) the intolerable vexations and exactions put upon the maſters of the ſugar-mills by their creditors, who, unleſs theſe maſters paid them at the rate of two or three per cent. intereſt per month, made immediate ſeizure of their negroes, oxen, coppers, and other neceſſaries belonging to the ſugar-mills; ſo that the maſters of theſe ſugar-mills being reduced to a neceſſity of paying ſuch exorbitant exactions, or elſe to ſee themſelves entirely ruined, began to defend their plantations and mills by force, ſo that things ſeemed to tend at that time to a general inſurrection, if the ſame had not been prevented, by entering into thoſe contracts; by which means, the maſters of the ſugar-mills being freed from the oppreſſions of their creditors, and in lieu thereof now become debtors to the company, and time given them to employ their mills for the payment

ment of their debts, at certain limited times, and that at the rate of one per cent. intereſt per month only, all pretenſions and occaſions of a revolt were thereby removed, at leaſt for that time; the firſt term of payment being ſet out for a conſiderable time.

To make this the more evident, theſe following heads deſerve our particular obſervation: that the company and the merchants, being creditors of the maſters of the ſugar-mills, endeavouring at the ſame time to force them to the payment of their debts, by executions: this occaſioned, from the year 1647, to the time of the making of thoſe contracts, ſuch a confuſion, as muſt needs have tended to the total deſtruction of the ſugar-mills, and, conſequently, of the merchants and company; which induced them to apply themſelves to the great council, to find out ſome means, by way of diſcount, or otherwiſe, to put theſe debts into the company's hands.

The counſellors of juſtice did not, at firſt, agree in all points to theſe propoſals, but at their meeting on the 12th of Auguſt 1644, being better convinced of the matter, and that the company was ſufficiently ſecured and benefited thereby, the next following day did not only approve of the ſame, but alſo were of opinion, that ſome things might be rather mitigated for the advantage of the maſters of mills and their creditors, than not to relieve them at this juncture; ſo that the conditions were, the 10th of November 1644, agreed unto with the conſent of the counſellors of the court of juſtice and the finances.

Purſuant to theſe, the great council took care that public notice ſhould be given of theſe agreements made betwixt the company and certain private perſons, by which every one was forewarned not to ſell any thing upon credit to them, without the conſent of the great council; and their creditors ſummoned to make good their debts within three weeks time, or elſe to be excluded from the benefit of the contract, till after the time therein limited was expired. From all which, it is ſufficiently demonſtrable, with how little appearance of truth ſome have attempted to inſinuate, that theſe contracts were prejudicial to the company, and had given no ſmall occaſion to the enſuing revolt of the Portugueſe; when it is beyond all queſtion, from what has been ſaid before, that theſe were the only means to prevent thoſe calamities, wherewith the maſters of the ſugar-mills, and the farmers or country-planters, were overwhelmed all at that time, who were forced to let their mills ſtand ſtill, and leave the ground uncultivated; all which, as it tended to the utter deſtruction of the ſugar-mills, ſo the company ſuſtained an irreparable loſs, viz. thirty-eight pounds per cent. yearly in Brazil, and thirty-ſeven pounds per cent. in Holland, which being ſeventy-five pounds per cent., did altogether ariſe from the uſe of the ſugar-mills.

Beſides this, there were not a few of thoſe merchants that were creditors of the ſugar-mills, that were conſiderably indebted to the company, who pleaded inſolvency, by reaſon of the non-payment of their debtors; the company would have been conſiderable loſers by them, unleſs by this way of diſcounting, they had found means to recover thoſe deſperate debts. All which moved the great council to make a virtue of neceſſity, and, with the advice of the maſters of the ſugar-mills and their creditors, and the approbation of the council of Nineteen, to enter upon thoſe articles; which could not be in anywiſe detrimental to the company; though ſome malicious perſons have objected againſt them, that (ſuppoſing there had been no revolt) theſe maſters would not, in twenty years, nay, perhaps never, have been in a condition to wrong the company, what they had laid out upon their account; when it is ſufficiently known that the great council never paid one farthing of ready-money for them on the account of the company; beſides, that for the ſatisfaction of the company, twenty-five ſugar-mills were engaged, which, one with another, affording from two hundred and thirty

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to two hundred and fifty cheſts of ſugar yearly; if the company had drawn but a hundred and forty or a hundred and fifty cheſts from each, the ſame would have amounted to four hundred and twenty thouſand gilders; from whence it is evident, that, not to include the ſugar-mills, their coppers, oxen, and other inſtruments thereunto belonging, the ſum of two millions one hundred and twenty-five thouſand eight hundred and ſixteen gilders, being the total ſum of the debt owing to the company by virtue of theſe contracts, might have been ſatisfied without much hazard; the Portugueſe maſters of the ſugar-mills, being by this expedient left in the quiet poſſeſſion of their mills, and eaſed from the oppreſſions of their creditors, and our hopes were not a little increaſed by the induſtry of the inhabitants of the country, who, finding themſelves now at eaſe, applied themſelves with ſo much aſſiduity to the improvement of their plantations, for the better ſatisfying of their debts, that, in 1645, there was ſuch a fair proſpect of a plentiful harveſt of ſugar, as had not been known in many years before.

But it ſeems as if the Portugueſe, out of an in-born hatred to our nation, who had conquered them, were reſolved not to reſt ſatisfied, till by underhand practices and plots they had undermined our government. Add to this, that many of them having involved themſelves over head and ears in debt, and ſeeing no way to ſatisfy their creditors, were become deſperate, and more forward to run the hazard of an open revolt (in hopes of aſſiſtance from Portugal), than to undergo the unavoidable neceſſities of poverty; which made ſome of them frankly tell our people afterwards, that in caſe they were diſappointed in their hopes of ſuccours from the Bahia, they would ſeek for aid in Spain or Turkey.

Towards the latter end of the year 1642, there were rumours ſpread abroad of a plot contrived by the Portugueſe againſt the ſtate, when they were diſarmed, and their arms brought into the magazines, which however they got again under ſome pretence or other afterwards, they living very quietly among us, for fear, as I ſuppoſe, of our garriſons, and that they were not then ſufficiently aſſured of ſuccours from the Bahia. But it will not be amiſs to trace the true origin of this revolt.

The 13th December 1642, one John Fernandes Vieira, alderman of Maurice's Town, appeared in the great council, Count Maurice being preſent, where he told them, that he had been informed by certain Jews, how he and his father-in-law Beringel were ſuſpected in Holland, of having ſent letters by a ſon of the ſaid Beringel to the King of Portugal, tending to the detriment of the ſtate. He did not deny to have ſent a letter by the ſaid perſon to the King of Portugal, but containing no more than a recommendation of the ſaid Beringel's perſon, to help him to ſome employment under the King: this he offered to prove by his copy, which being produced, there was found nothing material in it, but a congratulation to the King upon his acceſſion to the crown, and a recommendation of the ſaid Beringel; Vieira further propoſed, that he thought it abſolutely neceſſary, for the ſafety of the eſtate, to have the Portugueſe diſarmed, as likewiſe the captains De Campo, with thoſe under their juriſdiction, the negroes, Brazilians, mulatts, and Mamalukes.

There was alſo a letter ſent by the council of Nineteen, dated 1ſt June 1642, to Count Maurice, containing in ſubſtance, that one John van North, who had ſerved for fourteen months in the quality of a cadet in Brazil, had declared to them at Amſterdam, that he had been a ſervant in a ſugar-mill belonging to John Fernandes Vieira, where, after a ſtay of two months, he was entreated by Franciſco Beringel Labrador, to go with his ſon Antonio Dandrado Beringel, as an interpreter, to Holland, and from thence to Portugal; which upon great promiſes he accepted of, and they ſet ſail

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on board the ſhip called the Love from Brazil for Zeeland, and afterwards from Ulliſſimen went to Liſbon. He ſaid, that this Antonio Dandrado Beringel, after a familiar converſation of three weeks, had told him that he was ſent with a letter ſigned by John Fernandes Vieira, Franciſco Beringel, Bernardin Karvailho, John Biſerro and Lewis Bras Biſerro, in which they gave to underſtand to the King of Portugal, that they were well provided with men, money, and arms, for the reducing Brazil under his obedience. The council added, that the King of Portugal had made the ſaid Beringel a captain for this piece of ſervice, and that therefore they deſired Count Maurice and the great council to keep a watchful eye over them, being ſenſible what an averſion the Portugueſe did bear to the Dutch.

At the meeting of the great council of Brazil, 16th February 1643, Count Maurice aſſured them, that he had received intelligence, that ſome of the chiefeſt of the Portugueſe had reſolved to ſurpriſe our garriſons in the country, at Moribeca, St. Anthony, and ſome other places, and to put them to the ſword, which was to be put in execution upon one of their ſaint's days, when they uſed to meet in conſiderable numbers. Thoſe who had the chief management of this affair, had their dwelling-places in the Vargea, who had propoſed to ſurpriſe likewiſe the Receif, not queſtioning that if they could make themſelves maſters of it, the other garriſons in the country would be eaſily reduced, and conſequently the company not able to ſubſiſt long in Brazil, without ſoldiers and traffic.

Hereupon it was taken into deliberation, whether it were beſt to ſecure the heads of this rebellion immediately, or to delay it till a more convenient time, for fear of alarming the whole country by their impriſonment: the laſt was reſolved upon, becauſe they did not think themſelves as yet ſufficiently aſſured of their deſigns, and did not queſtion, but that by the ſecret intelligence Count Maurice was to receive of their tranſactions, to prevent them. It was however judged adviſeable to draw the garriſons out of the country into the Receif, which was ſtrengthened with new palliſadoes, and the old wooden battery repaired; a ſhip was alſo ordered with ſeveral great chaloops, the firſt on the ſea-ſide, the others in the river, to defend the avenues of the Receif with their cannon. There were likewiſe divers letters ſent by private perſons, ſome without names, to Count Maurice and the great council, confirming the traiterous deſigns of the Portugueſe; among others, one Mr. Van Els ſent a letter to Count Maurice, dated at Serinhaim the 20th of March 1643, importing, that he had it from ſure hands, that a certain mulat, of the company of Auguſtin Hardoſo, being aſked by certain inhabitants of that Fregeſie, what buſineſs they had thereabouts, had told them, that they had been to carry letters to ſome perſons living near the Receif; adding, that in a ſhort time they would ſee that place taken without any effuſion of blood, either of the Dutch or Portugueſe.

In December 1643, Don Michael de Kraſto, Don Baſtian Manduba de Sonho, and Don Antonio Ferdinandes, three ambaſſadors from the Count Sonho in Angola, arrived in the Receif, in the ſhip called the Arms of Dort; they had but one ſervant each, but brought along with them ſeveral negroes with golden collars, as a preſent to Count Maurice, beſides a great number of other negroes for the company.

Being admitted to audience by Count Maurice and the great council, they deſired, in the name of their maſters, not to ſend any aſſiſtance to the King of Congo, whom they feared would attack them before long, notwithſtanding they were at that time both engaged in a war againſt the Portugueſe. They received for anſwer, that the council would write to Mr. Niewland, their director there, to interpoſe his authority and mediation, in order to maintain a correſpondency, and remove all occaſion of con-

teſt betwixt the King of Congo and their maſter, they being both confederates of the ſtates: the ſaid earl ſent likewiſe a letter to Count Maurice, in which he deſired leave to buy a chair, a cloak, ſome enſigns of war, ſome apparel, and ſuch like things. The great council wrote alſo a letter, as well to the King of Congo, as to the Count of Sonho, exhorting them to peace, and ſent them the following preſents in the name of the company: — To the King, a long black velvet cloak, with ſilver galloons, a ſcarf edged with ſilver lace, a velvet coat, and a caſtor-hat with a ſilver hatband. — To the Count, a red velvet elbow-chair, with gold fringes, a large velvet cloak, with gold and ſilver galloons, a ſcarf with a gold and ſilver lace, a velvet coat, and a caſtor-hat with a gold and ſilver hatband.

They were entertained with all imaginable civility during their ſtay here: they were very ſkilful in playing with the backſword; in the management of which, they made moſt terrible poſtures and faces. They underſtood Latin very well, and made ſeveral learned harangues in the ſame.

The 13th of October 1644, a certain Jew called Gaſpar Franciſco de Kunha, with two others of the chief of the ſame fraternity, gave notice to the great council, that they had been credibly informed by ſome Jews, who converſed and kept frequent correſpondence in the country, that the Portugueſe were plotting againſt the Dutch Brazil, telling the council the reaſons upon which they founded this ſuſpicion. The council, after having returned thanks to theſe elders for their care, reſolved to leave no ſtone unturned, to diſcover the deſigns of the Portugueſe; and having received certain intelligence, that they expected ſome arms and ammunition to be brought them by ſea, they ordered, the 12th of October 1644, the yacht called Niewhouſe, with a galiot and a chaloop, to cruize along the coaſt of Dutch Brazil, to obſerve what veſſels did approach the ſhore.

The 11th of May 1644, Count Maurice left the Receif, in order to his return to Holland, after he had been eight years governor of the Dutch Brazil. All the citizens and chief inhabitants, both of the Receif and Maurice's Town, appeared in arms, making a lane from the old town to the water-gate, from whom, as he paſſed by, he took his leave with all imaginable demonſtrations of kindneſs. At the gate he mounted on horſe-back, and being accompanied by the great council, the counſellors of juſtice, and all the military officers, as far as Olinda, he there once more took his leave of them in particular, the Sieur Bulleſtraet remaining only with him, being deputed by the regency to conduct him on board the ſhips deſigned for his tranſportation. They did not ſet ſail from the Red Land till the 22d of May, with a fleet of thirteen ſhips, on board of which were a good number of ſoldiers, leaving only eighteen companies for the defence of the Dutch Brazil. Mr. Bulleſtraet returned the 26th to the Receif.

On the 22d of April, not long before the departure of Count Maurice, the commiſſion from the governors of the Weſt India company, according to a reſolution taken at their meeting the firſt of July 1642, concerning the government of Dutch Brazil, and dated the 22d of May 1643, was read in the great council, by which the members thereof were to have the adminiſtration of the government till further orders. Accordingly, Count Maurice having appointed a day to inveſt them with the adminiſtration of the government, he ordered (with the conſent of the ſaid council) an aſſembly to be called on the 6th of May, of the counſellors of juſtice, of the magiſtrates, the eccleſiaſtical council and miniſters of Maurice's Town; of the commanders-in-chief, both by ſea and land, the chief officers of the company, the officers of the militia, and the chief men among the Jews.

All theſe being at the appointed time met in the great hall of the Stadthuis, he told them, that ſince Their High and Mightineſſes the States, His Highneſs the Prince of Orange, and the council of Nineteen, had been pleaſed to grant him leave, after a ſtay of eight years among them, in the quality of governor of the Dutch Brazil, to return into Holland, he had called them together, to return them thanks for the many ſervices, each in his ſtation, had done to the company; as likewiſe for the obedience, fidelity, and reſpect they had always ſhewn to his perſon; telling them, that from this minute he reſigned the government into the hands of the great council, requiring and deſiring them, in the name of the States, the Prince of Orange, and the council of Nineteen, to ſhew them the ſame obedience, fidelity, and reſpect, they had done before; whereupon Count Maurice having congratulated the council, and the reſt there preſent done the ſame, he took his leave of them in the hall, and immediately after in the council-chamber, of the members of the great council, giving them moſt hearty thanks for their faithful council and aſſiſtance upon all occaſions, and for the reſpect and deference they had always ſhewn to his perſon; telling them, that ſince this would be the laſt time of his appearing in their aſſembly, he had drawn up a memorial, which might ſerve them as a guide, for the better adminiſtration of the government; and that, if they thought it convenient, he ſhould be ready to diſcourſe with them, and enlarge further upon that ſubject. The members of the great council returned him their unfeigned thanks, wiſhing him a happy voyage, and good ſucceſs in all his undertakings, and recommended themſelves and the whole Dutch Brazil to his care hereafter. Before the breaking up of the aſſembly, it was debated in the preſence of Count Maurice, which of the members ſhould have the precedency there as preſident, or whether the ſame ſhould be taken by turns, the ſame being not determined in their commiſſion. After ſeveral arguments *pro* and *con*, it was agreed, that things ſhould remain, in reſpect of this point, in the ſame condition as had been uſual before, in the abſence of Count Maurice, viz. for every one to keep his rank without any priority, till further orders from the council of Nineteen; to wit, firſt Mr. Dirk Hamel, then Mr. Bulleſtraet, Mr. Kodde Vander Burgh, &c.

The next thing the great council took in hand, was to inquire more narrowly into the deſigns of the Portugueſe againſt the government; to effect which, it was reſolved, in January 1644, to ſend Gilbert de Wit, counſellor of the court of juſtice, and Captain Dirk Hoogſtraten, then commander-in-chief in the Cape of St. Auſtin, to Antonio Telles de Sylva, then governor of the Bahia, with the following inſtructions, dated the 15th of the ſame month; to compliment the governor (after the delivery of their credentials), in the name of the great council, with a ſincere promiſe and aſſurance of friendſhip, and good neighbourly correſpondency. After this, they were to repreſent to him, that many of the ſubjects of the Dutch Brazil, after having contracted conſiderable debts there, both with the company and other inhabitants, did retire into the Bahia; wherefore they deſired, that for the promoting of juſtice, they would either detain thoſe bankrupts in priſon, or at leaſt give timely notice of their coming thither, to the Dutch government, whereby their ſubjects might be enabled to proſecute them at law: but their real errand was to be inſtructed underhand in the following points:

1. What forces the Portugueſe had at that time in the Bahia, and the other ſouthern provinces.
2. What number of ſhips.
3. What number of ſhips were expected there out of Portugal.

4. How

4. How the negroes trade ſtood affected, and from what places they were brought thither.

5. Whether there was any commerce betwixt them and the inhabitants of Buenos Ayres.

6. In what condition their places were thereabouts; of all which they were to give the beſt account they were able to get, after their return to the great council; they were alſo charged by word of mouth, to make diligent enquiry who were the perſons that underhand encouraged the ſo-much-feared revolt of the Portugueſe in the Dutch Brazil, and what aid or aſſiſtance they were to have from them; and to deſire the governor not to permit for the future, that ſuch of the Dutch ſoldiers as deſerted out of the Receif, and went by land to the Bahia, might from thence be tranſported into Portugal, but be ſtopped and ſent back to the Receif.

Theſe convoys arrived ſafely the 8th of February 1644, in the Bahia, and dropped their anchor, towards the evening, near the city of St. Salvador, and the caſtle of St. Antonio, where two officers came on board them, to enquire from whence they came, and by whom, and to whom they were ſent, in order to give an account thereof to the governor, Antonio Telles de Sylva. The next following day they were complimented in the name of the governor, by Major Domingo Delgados, and Captain David Ventura, who told them that he intended to ſend his chaloop with the firſt opportunity to fetch them aſhore. About three o'clock in the afternoon, the ſame officers, with three or four more, came with the chaloop to fetch them; and they were no ſooner landed, but found ſeveral horſes ready for them to mount upon, which they did, and were conducted up a high hill, all over covered with ſpectators, to the governor's palace. In the outward hall was a ſtrong guard of ſoldiers; in the ſecond, ſeveral enſigns and other inferior officers; in the third apartment they met with nothing but captains and lieutenants; and in the fourth, with colonels, general officers, ſome clergymen, and the governor himſelf; who, after having received them at the door, deſired them to ſit down next to him, upon chairs ſet for that purpoſe. The envoys then begun their harangue, in which they told him, that they were extremely glad to find him in good health at this time, when they were ſent by the great council of the Dutch Brazil, to aſſure him of their good inclinations to maintain a good correſpondency and friendſhip with him, and of their hearty wiſhes for His Majeſty's, his own, and the government's proſperity; to preſerve which, they were ready to contribute all that lay in their power. Then they told him, that they had ſeveral things to propoſe to him, when he ſhould think convenient to receive them; the reſt of the diſcourſe run upon mutual compliments and news. After which, the envoys were again accompanied by the governor to the door of the apartment, where he ordered the before-mentioned Domingo Delgados and David Ventura, to conduct them to a certain large houſe, finely furniſhed, in Biſhop's-ſtreet, and to entertain them at his charge; which, though the envoys refuſed, alledging it to be contrary to the intentions of their maſters, yet were forced to accept of the ſame, and were very magnificently entertained at ſupper.

The next morning about eleven o'clock, they went again to the palace, and after having deſired a ſecond audience, were received in the ſame manner as before. Every one being ordered to withdraw, beſides the ſecretary of the governor; the envoys made their propoſitions to the laſt, which they delivered to him in writing, in Portugueſe, recommending the ſame to his conſideration, as tending towards the maintaining a good and firm correſpondency betwixt them. To which the governor gave this general

anſwer: "That he ſhould always endeavour to cultivate a good underſtanding and correſpondency with us, purſuant to the ſtrict and reiterated orders he had received for that purpoſe from the King his maſter. And that concerning the propoſitions made by them to him, he would aſſemble his council of war and juſtice, and afterwards impart to them his anſwer." Then they were, by Domingo Delgados, reconducted to his own houſe, where they were very well entertained the ſame day at dinner, and the next by the governor himſelf.

The 17th they had another audience from the governor, who told them, in very obliging terms, "that he had conſulted the matter with his council, and could give them no other anſwer but what was contained in this letter," which he delivered to them, and told them the contents thereof; whereupon our envoys told him, that ſince thereby a door was left open for rogues and vagabonds, they hoped he would at leaſt order that the names of ſuch as fled to the Bahia might be taken notice of, that the great council of the Dutch Brazil might not remain quite unſatisfied, whither they were fled; which he promiſed to do. After ſome further compliments, and mutual aſſurance of friendſhip, they parted for this time.

The 22d they took their leave of the biſhop, and ſeveral other perſons of note, unto whom they owed any obligations, and laſt of all of the governor himſelf, being conducted thither by many perſons of quality and officers; they returned him thanks for the civilities and reſpect he had been pleaſed to ſhew them, wiſhing both him and His Portugueſe Majeſty a long and happy reign, and victory againſt the Caſtilians. The governor returned their compliments, and conducted them out of the room, ordering ſeveral negroes to attend them down the precipice of the hill, upon which the city is built, with chairs; but the envoys chooſing rather to go on foot, they were, in the ſame chaloop they came in aſhore, carried back under the ſound of muſic on board their yacht. The Portugueſe officers, after having taken their leave, returned to the city, and ours made the beſt of their way to the Receif, where they arrived ſafely not long after.

The letter delivered to them by the governor was as follows:

The Governor's Letter.

"Gilbert de Wit counſellor of your court of juſtice, and Dirk Hoogſtraten commander-in-chief on the Cape of St. Auſtin, Your Lordſhips deputies, whom I received according to their quality and merits, have delivered your letter to me, and propoſed ſuch other matters as they were empowered to treat with me about. Though I endeavour nothing ſo much as to cultivate and maintain in the ſtricteſt manner, our neighbourly good correſpondency, yet am I conſtrained at this time frankly to acknowledge, that it is not in my power to give your lordſhips any more ſatisfactory anſwer than this, in hopes that the many proofs you have had of my ſincere inclinations, will ſerve as a plea with Your Lordſhips, to aſſure you, that I ſhall always be ready in all points depending on my government, to give the ſame proofs both of obedience and fidelity to the King my maſter, whoſe pleaſure is, that the truce ſhould be obſerved inviolably; and of my ſincere intentions, and the eſteem I have for Your Lordſhips friendſhip, deſiring nothing more than that you furniſh me with an opportunity of giving real demonſtrations of my readineſs to ſerve you; whom I recommend to the protection of God Almighty.

"Bahia, Feb. 14th, 1645. (Signed) ANTONIO TELLES DE SYLVA."

Concerning

Concerning the ſix points mentioned in their ſecret inſtructions, they made the following report to the great council:

" 1. That the Portugueſe forces in thoſe parts were generally eſteemed to be leſs or more betwixt three and four thouſand men, without the Brazilians and negroes. But that upon the moſt exact enquiry they could make, they had found them to be not above three thouſand, including the Brazilians and negroes, and their garriſons both to the north and ſouth, as far as Rio Janeiro. Theſe conſiſted of five regiments, viz. three of Portugueſe, under the Colonels John Darauge, Martin Soares, and N. N. the fourth of Brazilians, under a Brazilian colonel, Antonio Philippo Camarao, and the fifth of negroes, under the command of negro Henricio Dyas. Theſe two laſt regiments, amounting both not to above three hundred men, were divided in the garriſons to the north, about Rio Real on our frontiers; they being the ſcum and off-caſts of all their territories, and conſequently not to be quartered near the capital city, there having of late been ſome broils among them in the garriſons, whither officers were diſpatched to compoſe them. The three Portugueſe regiments, conſiſting of about two thouſand ſeven hundred men, kept garriſon in St Salvador, and the circumjacent forts, except two companies, one of which was quartered about Rio Real, the other in the iſland Morro St. Paulo: and about one hundred and fifty more, which were diſpoſed in the captainſhips of Os Ilheos, Porto Seguro, and Spirito Sancto; ſo that the garriſons of St. Salvador and the circumjacent forts conſiſted of at leaſt two thouſand three hundred, each company conſiſting of one hundred men leſs or more, all choſen men and well cloathed; four companies mounted the guard every night, one at the palace, at each of the two gates one, and the fourth in the water-works without the city.

2. " Of their naval ſtrength they gave a very ſlender account, being more conſiderable in number than force, as conſiſting only in fifty ſmall veſſels and yachts, not in the leaſt fitted for war; neither could they obſerve the leaſt ſhow of preparations tending that way, their aim being only to protect their ſhips bound to the Portugueſe coaſts againſt the inſults of the Caſtilian and Denmark privateers, and the Turkiſh rovers. It was, as they ſaid, upon this account, that during our ſtay there, two ſtout Portugueſe ſhips fit for war, manned with ſix hundred men, and provided with good ſtore of ammunition, arrived in the Bahia, under the command of Salvador Correada-ſa, with orders to go directly from thence to Rio de Janeiro, and to fetch all ſhips ready laden from thence to Bahia, from whence they were to convoy theſe as well as ſuch other veſſels as they found ready there, to the coaſt of Portugal; for which reaſon alſo all the veſſels which otherwiſe uſed to go according to their own conveniency, were ordered to ſtay for the ſaid convoy. That news was brought by the ſaid two ſhips, that the King of Portugal had forbid the building of caravels and other ſuch like ſmall veſſels, inſtead of which they were to build ſhips of better defence againſt the inſults of an enemy at ſea. From whence the envoys ſaid they ſuppoſed would ariſe this inconveniency to the Portugueſe, that the freights and convoy-money paid for the commodities tranſported from Portugal to the Portugueſe Brazil, and for the ſugar tranſported from thence to Portugal, muſt increaſe, and conſequently would not be able to ſell the laſt at the ſame price the Dutch did, conſidering eſpecially that they muſt be conſiderable loſers both in their intereſt and time, where they were forced to tarry for their convoys, whereas they uſed formerly to make the beſt of their way home.

" 3. They had obſerved, that though the inhabitants of the Bahia expected the coming of thoſe ſhips at their firſt arrival, yet ſeveral veſſels arrived there, both from the Portugueſe coaſt and the iſlands, before the reſt.

" 4. They concluded the negro-trade to be very inconſiderable there, they having ſcarce ever heard it as much as mentioned, but becauſe the price of a good negro did not at that time amount to above three hundred gilders, they ſuppoſed them pretty well ſtocked with them; thoſe which were of late bought there being brought thither from Cape Verde and Arder. They farther reported, that when on Wedneſday, being the 8th of February, they entered the Bahia, they met two ſhips of good bulk, carrying about twenty guns each, and well manned, going out, which upon enquiry were told them to be bound for Portugal, but could not learn to what harbour there, which, together with ſome other reaſons, made them ſuſpect they were intended another way, in which we found ourſelves not deceived, when on the 22d of February, juſt as they were ready for their departure, they underſtood from the Mulat Juliana, and of two monks, that theſe two ſhips were ſent with men to Angola, for the ſecurity of the inhabitants of Maſagao, who, being but ſmall in number, were ſorely afraid to be ſet upon by the negroes of the country, and having deſired the governor's aſſiſtance, who ordered thoſe ſhips and the men to go in the night-time, and to endeavour to reach Maſagao unperceived by any, and without committing any hoſtilities againſt the Dutch. Whether and how far this might be true, time would ſhew, but they had all the reaſon in the world to believe, that it was upon their ſcore of concealing this expedition, as well as ſome other matters from them, that immediately after their arrival (though they were not informed of it till near the time of their departure) that no Dutch or Germans ſhould appear as much as in the ſight of the envoys, much leſs diſcourſe with them; which was obſerved with that ſtrictneſs, that they really imagined there had been no Dutch there; but found afterwards that they had been all (how many they knew not) carried on board the Portugueſe veſſels, to prevent their keeping any correſpondency with us and our ſhip's crew; to which end alſo, ſix centinels were placed in two boats lying near our yacht, during the time of our ſtay here, under pretence of protecting our veſſel, but in effect to prevent any body from coming on board us, purſuant to the orders of the governor.

" 5. That the inhabitants of the Bahia and the other Portugueſe captainſhips, had not the leaſt commerce at this time with thoſe of Buenos Ayres. That immediately after the revolution in Portugal, thoſe of Bahia had attempted to go thither, but were treated as enemies by them; ſo that it was their opinion, the place would either ſoon, or was already totally ruined for want of commerce; all their livelihood conſiſting in the traffic from the coaſt of Brazil thither; which falling away, no ſilver could be tranſported thither from Peru; it being not probable that the Spaniards would run the hazard of paſſing along an enemy's coaſt, when they had a ſafer way to tranſport their treaſures from the Weſt Indies.

" 6. That they could not get the leaſt certain information concerning the deſigns carried on betwixt ſome of the inhabitants of the Bahia and thoſe of the Dutch Brazil againſt the laſt; beſides which they gave them a general relation of what they had been able to learn, concerning the condition of the city of St. Salvador, its inhabitants, governor, and ſome other matters relating to the country thereabouts. "

The rumours which in 1640 were noiſed about concerning the treacherous deſigns of the Portugueſe inhabitants againſt us, being for that time vaniſhed into ſmoke, the ſame was revived, and their deſigns began to be diſcovered in February 1645, viz. That confiding in the promiſed ſuccours from Bahia, they intended to riſe in arms againſt us, looking upon this juncture as the moſt favourable for their purpoſe, ſince Count Maurice with the greateſt part of our fleet, and a good number of ſoldiers, were returned to Holland, from whence no freſh ſupplies were come of late into Brazil. The great council

council not being ignorant of this, were indefatigable in their care, to leave no ſtone unturned to find out the ring-leaders of this rebellion, ſo as to charge them effectually with this crime, and find out ſufficient cauſe for their commitment. They ſent out ſeveral of their officers into the country as ſpies, to ſound the inclinations of the people, and whether they could meet with any one who incited the reſt to an inſurrection. The like he did on the other ſide of the river of St. Francis, and in Kamaron's camp, whither they had ſent certain perſons to inveſtigate their deſigns, and to learn what preparations they made for war, and whether they were intended againſt Pernambuko, but were not able to find out any thing, upon which they could make any ſure account. Being nevertheleſs ſenſible that thoſe forewarnings were not altogether groundleſs, and knowing the Portugueſe to be of ſo haughty a temper (beſides the difference in religion) that they would ſcarce let any opportunity ſlip of withdrawing themſelves from the obedience of their conquerors; they writ the 13th of February 1645 the following letter, concerning the deſigns of the Portugueſe to the council of Nineteen:

A Letter from the Great Council to the Weſt India Company.

" Moſt Noble and Right Honourable,

" During the government of His Excellency Count Maurice, there were already ſeveral of the inhabitants of this ſtate entered into ſecret cabals to riſe in mutiny againſt us, in hopes of aſſiſtance from the Bahia; their buſineſs was to inſinuate into thoſe that were well affected to them, after their good ſucceſs in Maranhaon, that our forces being conſiderably weakened by the ſtrong detachments ſent to the garriſons of Angola, St. Thomas, and others, a fair opportunity was offered them, to withdraw themſelves from our obedience, and to enjoy their former liberty under their own King. They were not a little encouraged in their deſign, imagining the ſame might be carried on without any great difficulty, when they found that of late we had received no ſupplies either of meat or other proviſions, or of ſoldiers, from Holland, whereby the ſtore-houſes of the company here being exhauſted, the garriſons of the forts were forced to be ſupplied from time to time with farinha and freſh meats out of the country; they judged, if they could once be maſters in the field, they muſt of neceſſity fall into their hands, as it happened in 1640 to the Spaniſh garriſons in Portugal, who for the ſame reaſon were not in a condition to hold out againſt the Portugueſe; being, beſides that, ſenſible that, unleſs we would too much weaken our garriſons, we had no ſufficient number of troops left to appear formidable in the field. Theſe and other ſuch like inſinuations have been frequently ſpread among the Portugueſe, by thoſe who, finding themſelves moſt uneaſy under our government, hoped for a change of their affairs by changing their maſters; which, however, wrought no conſiderable effect, as long as His Excellency continued in the government, partly becauſe we, being forewarned of their deſigns, kept a watchful eye over all their actions, and partly becauſe our ſea and land forces being much more conſiderable at that time than they are now, they had but little proſpect of ſucceeding in their enterpriſe, which therefore they judged moſt convenient to defer till after His Excellency's departure, which as it was ſufficiently known beforehand, ſo they were ſenſible that thereby our forces both by ſea and land muſt be conſiderably weakened, and conſequently would furniſh them with a fairer opportunity of putting their ſo long rejected deſign in execution; the more, becauſe that many of the Portugueſe who, relying hitherto upon the authority of Count Maurice, as the only means to keep the ſoldiers in awe, being now put in fear of the executions and exorbi-

tancies likely to be committed by the covetous officers and rapacious ſoldiers, would be forced to join with them againſt us. After the departure of His Excellency for Holland, thoſe cabals have inſtead of divine things increaſed every day; they have been very diligent in getting information concerning the ſtrength of all our garriſons, with an intent to carry on their deſigns before we could be reinforced with ſupplies of men and proviſions from Holland; to effect which they have, by meſſengers ſent to Bahia, ſolicited for ſuccours of men and arms, of which, as it ſeems, they have no ſmall hopes. There is great reaſon to believe that the journey of Andrew Vidal from the Bahia hither, in Auguſt laſt, undertaken under pretence of taking his leave before his return to Portugal, in order to ſerve the King there, was founded upon no other motive than to inform himſelf moſt narrowly concerning the true ſtate of affairs here, in order to give a verbal account thereof in the Bahia, and afterwards in Portugal; as likewiſe to ſound the inclinations of the inhabitants, and to animate ſuch as he found well diſpoſed for his intereſt, with hopes of ſpeedy ſuccours from the Bahia: we having ſince received ſecret intelligence that he has been preſent at ſeveral of theſe cabals. But though they were greatly encouraged with theſe hopes of good ſucceſs, by reaſon of the diminution of our forces, and ſcarcity of proviſions, they were not very forward in venturing upon this enterprize, being ſenſible that their deſign having taken vent, we made all neceſſary preparations againſt them; beſides that many of the Portugueſe inhabitants being beyond their expectation well ſatisfied with the government of the great council, did rather chuſe to live quietly and ſecurely, than to engage in ſo dangerous an enterprize. So that things remained without any conſiderable alteration at preſent; and, as matters ſtand now, we are not able to find out ſufficient cauſe to ſatisfy ourſelves whether they proceed in the ſame deſign. Their chief deſign, as we are credibly informed, was laid againſt the Receif, which they intended to ſurpriſe, upon a certain day appointed for the ſale of negroes, when the inhabitants of the country flocking thither in great numbers, they did not doubt but, with the aſſiſtance of our own negroes, who are for the moſt part papiſts, to make themſelves maſters of the place, not queſtioning but if this ſucceeded, the reſt would ſoon be forced to yield. But in this they were prevented by the ſtrong guards we took care to poſt in the Receif on thoſe fair-days. The chief ring-leaders, as they are ſpecified to us, are John Fernandes Vieira, and his father-in-law Franciſco Beringel, with ſeveral others, whom we would have committed to priſon, if we could have had more certain information againſt them; but though we left no ſtone unturned to find out the truth, yet we could not meet with ſufficient motives to induce us either to impriſon them, or to proceed again to the general diſarming of the inhabitants, we having received certain intelligence, that ſo ſoon as we ſhould attempt it, we muſt expect no leſs than a general inſurrection, which, conſidering our own magazines and ſtorehouſes were ſo ill provided, and no ſufficient force could be drawn out of the garriſon to ſecure the open country, would have drawn after it very ill conſequences for our nation, eſpecially thoſe living at ſome diſtance from our forts, who thereby, as we had reaſon to fear, might have been expoſed to the danger of being maſſacred by the Portugueſe. It is evident, from the information given to your lordſhips in Holland, and tranſmitted to us, that the ſubjects of the King of Portugal themſelves are encouraged and animated againſt us; wherefore it will be abſolutely neceſſary to be very cautious, and to haſten the ſupplies we ſo often have requeſted at your hands. Upon the firſt information we received, that toward the ſouth of the Receif the Portugueſe intended to land ſome men or arms, we ſent the 13th of October a yacht, the Enckhuyſen, with another galliot and chaloop, to cruiſe thereabouts, but they returned after ſome time without being able to diſcover any ſuch thing. The next intelligence we had was, that

a fleet

a fleet was equipping in the Bahia, to tranſport ſome forces for the aſſiſtance of our rebellious ſubjects; to find out the bottom of this deſign, we thought we could pitch upon no better expedient than to ſend thither Mr. Gilbert de Witt and Dirk Hoogſtraten with certain inſtructions, of which we have incloſed the copy, who ſet ſail the 25th of the laſt month. Being further informed that a certain Portugueſe captain, with an enſign and three ſoldiers, have been lately diſpatched from the Bahia to our captainſhips to endeavour to ſtir up our ſubjects to rebellion, with aſſurance of ſuccours from thence: we have employed all neceſſary means to find them out and get them into our hands. We ſhall not be wanting in any thing which, according as occaſion preſents, may contribute to the preſervation of this ſtate.

"Receif, 13th February 1645."

The 4th, the great council were informed, by letter from Iſaac Raſiere and Captain Blewbeck, written at Parayba, that a rumour was ſpread thereabouts that Kamaron, chief commander of the Brazilians in the Bahia, was on his march from Sertao to Siara to join with the Brazilians inhabiting thereabouts, to attack with their united forces the inhabitants of the captainſhip of Rio Grande. Whereupon the council ſent orders to Hans Vogel, governor of Seregippo del Rey, to get intelligence and ſend them ſpeedy word whether Kamaron with his camp were ſtill in Rio Real; and if not, whither he had taken his march, or whither he intended to take it. They alſo ſent word to the inhabitants of Parayba that they ſhould be very diligent in enquiring after the cauſe of this rumour, and ſend them intelligence accordingly.

The 15th of May they received an anſwer from Hans Vogel, dated the 25th of April at Seregippo del Rey, wherein he told them, that purſuant to their orders he had ſent a ſerjeant with ſome ſoldiers to Kamaron's head-quarters, about ten leagues from Seregippo del Rey, under pretence of looking for ſome deſerters; who, after their return, reported that his forces, conſiſting of two hundred Portugueſe and one thouſand two hundred Brazilians, were ſtill in the ſame place, buſied for the moſt part in cultivating ſome plantations, Kamaron himſelf being then in the Bahia, to aſſiſt at the ſolemnity of their Eaſter, from whence they conjectured that the rumour concerning his march was only a fiction. But two days after the ſame rumour was renewed by two paſſengers coming from Rio St. Franciſco, and being landed by one John Hoen, a maſter of a veſſel near Kindelaria; but upon a more ſtrict inquiry made by the council, the ſaid maſter of the veſſel declared, that on the eighth of the ſame month, when he left Rio St. Franciſco, there was no news of Kamaron's march.

The 30th of May 1645, a letter without a name was delivered to the great council by one Abraham Markado, a Jew, ſubſcribed only "Plus ultra." This letter being tranſlated out of the Portugueſe the ſame night, the contents whereof were, that three unknown perſons gave them notice that a good body of troops were come from Rio Real into Parayba, with an intention to join with a diſcontented party there, and to ſurpriſe the Dutch forts; with advice to ſeize upon the perſon of John Fernandes Vieira their chief ring-leader.

The letter is as follows:

A Letter of Intelligence to the Council.

"We ſtand amazed you are ſo ſecure, when it is reported that the Matta of Parayba is full of ſoldiers, come thither lately from Rio Real, who conſiſting of a good number

of negroes, mulats, and Portugueſe, with Kamaron at the head of them, began their march in the month of March, expecting now to be joined by other troops, which hitherto were ſtopped by the overflowing of the rivers. Their aim is to encourage the inhabitants to take up arms, which done, they expect conſiderable ſuccours from the Bahia, both by ſea and land, wherewith they pretend to block you up in the Receif, intending to fix their camp either at Olinda, or in the Vergea, and quarter the ſoldiers in the Fregeſies thereabouts. They boaſt that their forces are already conſiderably increaſed by thoſe who are indebted to the company, and other vagabonds, and threaten to maſſacre all ſuch of your ſubjects as refuſe to join with them. A certain perſon of note and reputation belonging to the ſame camp, has given us this information, in order to communicate it to Your Lordſhips, to be upon your guard, which we do accordingly by theſe preſents. The ſame perſon told us, that John Fernandes Vieira was the chief ring-leader of this inſurrection, who maintains the rebellious crew in the Matta, as they meet together, till a certain time appointed for their rendezvous, when they are with their joint forces to attack all the Dutch forts and out-guards at once. We were alſo told, that the ſaid Vieira does not ſleep in his houſe, and is always upon his guard; to try which, you have no more to do than to ſend ſome to take him, with his ſervants and factors; which if you could do they would be all amazed, and make an open confeſſion, which may be done without the leaſt hazard; for if you miſcarry in the attempt, it will nevertheleſs not redound to your diſadvantage. We conjure Your Lordſhips to take care of this poor nation, for fear they ſhould be forced to join with the rebels againſt you. We judge it therefore abſolutely neceſſary to undertake the buſineſs without delay, with all imaginable ſecrecy; for if they find themſelves diſcovered, they will begin the game immediately; ſo that ſtrong guards ought to be put in the outworks, and in the harbours of Kandelaria and the Receif. We adviſe Your Lordſhips to oblige the inhabitants forthwith to ſurrender their arms, to order all the maſters of the ſugar-mills, with their planters, to appear in the Receif, eſpecially thoſe of the Fregeſies of Vergea, Garaſſu, St. Lorenzo, St. Amaro, Moribeca, De Cabo, Pojuka, and Serinham, with aſſurance that they ſhall not be moleſted for any debts there; and when they are come, to detain them till they ſee what is further to be done, under pretence of ſecuring them againſt the attempts of the rebels in the country, by which means you will both ſecure the government, and oblige many private perſons. The ſame method ought to be uſed with thoſe of Parayba, where they may be detained in the fort, as well as thoſe of Porto Calvo in that place. Thus if you can get the chiefeſt into your hands, the deſign will dwindle away to nothing. We beſeech you not to ſend away any more ſoldiers before you have made a full diſcovery of the rebellion, and provide your forts with good garriſons; whither we would alſo have all the Dutch inhabitants to retire for fear of being maſſacred. We three being faithful ſubjects of Your Lordſhips, have now ſatisfied our conſciences in propoſing your remedy, which conſiſts in the taking of Vieira, which muſt be undertaken with great ſecrecy and foreſight, he being, as it is ſaid, continually upon his guard. Your Lordſhips will be ſenſible without our advice how much it concerns them, not to divulge to any, from whom they have received this information; and we aſſure you, that we will not fail to give further intelligence of what we are able to learn by way of letters; and one time or other, we ſhall make no difficulty to let you know, who theſe three faithful ſubjects are. If we had been preſent, we could have declared no more than we have done in this letter. Your Lordſhips muſt take effectual care againſt their attempts without delay, the approaching feaſt being the time appointing for the putting it in execution. We have ſent you immediate notice after it came to our knowledge: we adviſe you likewiſe to ſeize upon Francisco Beringel, Vieira's

father-in-law, and Antonio Kavalkanti; and in ſhort, all the chiefeſt of the Vergeas, and other places.

(Signed) " A. Verdade.
" Plus Ultra."

Hereupon the great council called Paul de Linge, preſident of the council of juſtice, Vice-admiral Cornelius Lichthart, and Lieutenant-colonel Garſtman, into their aſſembly, to conſult unanimouſly what were beſt to be done at this juncture, for the preſervation of the Dutch Brazil; when by this, as well as ſeveral other letters and intelligences, they were forewarned of the approaching danger; and notwithſtanding they were much in doubt, whether they ought to make any certain account upon a letter written without a name; yet conſidering all the circumſtances of this, as well as ſeveral other informations, it was judged abſolutely neceſſary to provide for the ſafety of the Dutch Brazil, againſt any attempts of an enemy.

1. By providing all the forts with meal for two months.

2. By giving immediate notice to all commanders of forts to be conſtantly upon their guard.

3. To write to John Liſtry, chief commander of the Brazilians, to keep his people in readineſs with their arms in the villages, to be ready to march upon the firſt orders from the council, we being not in a condition to take the field without them.

4. To ſend abroad their ſpies in all corners, even into the woods, to get intelligence whereabouts the enemy's troops are, and to give timely notice of what they are able to learn to the council.

5. It was agreed, to ſummon John Fernandes Vieira, the chief ring-leader of the intended rebellion, and his ſecurities, Franciſco Beringel, Vieira's father-in-law, and Bernardin Karvalho, unto the Receif, under pretence of making a ſecond agreement with him, which he earneſtly deſired; by which means they ſhould ſecure his perſon, know the whole bottom of the Portugueſe deſign, and conſequently be the better able to prevent it. A certain broker, called Koin, who ſolicited this agreement for Vieira, was prevailed upon to undertake this taſk, which he might do without the leaſt ſuſpicion; but the Whitſuntide holidays put ſome ſtop to it for the preſent. With the ſame care the great council employed all poſſible means to get the other perſons of the Vergea, ſuſpected to have a hand in this rebellious deſign, into their hands, under ſome pretence or other, they being not likely to be taken by force, becauſe they did not lodge in their mills and houſes in the night-time, and by day were ſo ſtrictly upon their guard, that they could not poſſibly be ſurprized.

The 31ſt of May, Vice-admiral Lichthart, and Henry Haus, a lieutenant, offered to undertake the delivering of John Fernandes Vieira to the council, which they intended to effect, under pretence of giving him a viſit, and going a fiſhing with him in the lake Lewis Bras Biſerra.

The 9th of July the great council received advice by a letter from Mr. Koin, governor of Rio St. Franciſco, dated the 1ſt of June, that Kamaron, with a ſmall body, was paſſed the river St. Francis; therefore he deſired ſome aſſiſtance of men, with ſuitable ammunition.

The ſame was confirmed by another letter, dated the 27th of June, with advice, that as yet no enemy had appeared within ſight of the fort.

Frequent intelligence being likewiſe ſent to the council, that in the Matta of St. Lawrence, and ſome other diſtant places, conſiderable numbers of ſoldiers from the Bahia, of mulats and negroes, were gathering in a body, they ſent ſeveral ſmall bodies thither,

under command of ſuch as were well acquainted with that country, who all unanimouſly reported, that they could meet with no ſoldiers, mulats, or any other vagabonds thereabouts.

The 12th of June, the director Moucheron ſent further advice, that he had been credibly informed, by letters dated the 8th of the ſame month, from Rio St. Franciſco, that Kamaron and Henrico Dias, with ſix companies of Brazilians, mulats, and negroes, were paſſed the ſaid river; and that juſt as he was concluding his letter, two inhabitants of the Algoas had given him to underſtand, that ſome of them had been at their houſes for ſome meal; the copies of which letters he ſent to the council, who did now not in the leaſt queſtion, but that their deſign was upon the Dutch Brazil, eſpecially ſince they were forewarned by ſeveral letters from St. Antonio, that the inhabitants thereabouts ſeemed to prepare for a revolt.

The council finding their project of taking Vieira by craft, not to ſucceed, becauſe he and the ſecurities of his father-in-law, Franciſco Beringel, and Bernardin Karvalho, could not be cajoled into the Receif, under pretence of renewing their former contract, and looking upon him as the chief ring-leader of this revolt, they ordered Joachim Denniger, a lieutenant, with a good number of ſoldiers, to the mill and houſe of the ſaid John Fernandes Vieira, to bring his perſon from thence to the Receif. Accordingly Denniger advanced with his ſoldiers towards the evening near the mills, which he ſurrounded, and about midnight unexpectedly entered both the houſe and mills, making a moſt ſtrict ſearch throughout all the rooms and corners, but to no purpope. In the morning he withdrew at ſome diſtance, but returned the next night, when, after having made another ſearch, but in vain, he was informed by one of his Turkiſh ſlaves, and ſome negroes, that neither Vieira, nor his father-in-law Beringel, had ſlept in their houſes theſe laſt three weeks; that ſometimes they came thither on horſeback, but after a very ſhort ſtay went their ways again. Denniger likewiſe ſearched the houſes of Antonio Kavalkanti and Antonio Biſerra, but to as little purpoſe as thoſe of the former, being informed by their negroes, that they had abſconded for ſome weeks before.

In the mean-while, the council ſent divers parties abroad, under the command of Hans Catner, Slodiniſki, and Cunraed Hilt, all which, after their return, agreed in this, that there were no enemies there as yet, eſpecially not in the Matta, where they met with nobody but thoſe that were employed in manuring the grounds.

The great council finding themſelves altogether diſappointed in their hopes of taking Vieira, reſolved to ſecure, immediately, the perſons of Franciſco Beringel, Vieira's father-in-law, Bernardin Karvalho, and his brother Sebaſtian Karvalho, Lewis Bas, Amaro Lopez, and John Peſſoa, being perſons ſuſpected to have a hand in the conſpiracy, inhabiting the Vergea. In the more diſtant provinces were ordered to be ſeized,

In St. Amaro, Antonio de Bulhous.

In St. Antonio, Amador d'Arouja; Pedro Marinho; Antonio del Raſto.

In Pojuka, Korneo de Morais; Father Frey Lewis; and Franciſco Dias del Gado.

In Serinham, John Albuquerq, ſon-in-law of Pero Lopez de Vera.

In Porto Calvo, Rodrigues de Barras Pimentel.

In Iguaraka, John Pimenta.

In Itamarika, Father Lawrence d'Alkunha.

And in Rio Grande, John Leſtan Navarro.

But it being moſt of all to be feared that the inhabitants of Parayba, who were much indebted, would revolt before all the reſt, Mr. Paul de Linge was ſent thither immediately in the quality of director, with full power to act both in that and the captainſhip of Rio Grande, as he ſhould find it moſt expedient for the company, with expreſs

preſs orders to preſs one hundred men out of the ſhips, with proportionable proviſions, immediately after his arrival there, which were to be diſpoſed in the fort of St. Margaret, both for its defence, and to keep the inhabitants in due obedience.

And, conſidering that the ſcarcity of proviſions was one of the main obſtacles to be ſurmounted on our ſide, which, as the caſe then ſtood, would more and more increaſe, unleſs we could remain maſters of the field, from whence we drew moſt of our proviſions, and to over-awe the diſcontented inhabitants, it was judged requiſite to form a ſmall camp near St. Lawrence; and, accordingly, the two lieutenants Huykqueſloot and Hamel, were ordered thither with thirty-five men each, the firſt from Iguaraka, the laſt from Moribeca, as likewiſe Captain Wiltſchut, with fifty men more from the Receif; John Liſtry, commander-in-chief of the Brazilians, was likewiſe ordered to join with them with all poſſible ſpeed, three hundred Brazilians under their own commanders.

The ſame day, being the 12th, after a view was taken of the fortifications of Moribeca town, the ſame were ordered to be repaired; and news being brought, that John Fernandes Vieira had been ſeen in his mill the ſame night, the council endeavoured, with all poſſible care, to have ſecured his perſon, but in vain; it being certain, that (according to the depoſitions made by his ſteward of the mill, called St. John, before the public notary Indiik, in the Receif, 21ſt January 1647), near ſix months before the breaking out of this inſurrection, he had never ſlept one night in his houſe: and whenever he happened to be there in the day-time, he remained for the moſt part in a turret on the top of the houſe, from whence he could have a proſpect at a great diſtance; if his buſineſs called him below, he put ſomebody elſe there to keep the watch; who, if they ſaw but two or three perſons come that way, gave immediate notice thereof to him; and if any Dutch in a body were diſcovered, he retired inſtantly into the adjacent woods. He had likewiſe placed ſome negroes at a certain diſtance from the houſe, who were to give notice of the approach of any unknown perſons that way.

The 13th, Sebaſtian Karvalho, and Antonio de Bulhous, were brought in priſoners to the Receif, the reſt, who were ſenſible of their guilt, having eſcaped their hands; the firſt being examined the ſame night by the aſſeſſor of the court of juſtice, Mr. Walbeek, concerning the intended conſpiracy, gave him the following account by word of mouth:—

His Confeſſion.

"That he was one of thoſe three who, a few days ago, had, by way of letter, given an account of an intended conſpiracy in the Vergea, to the great council, the ring-leader thereof being John Fernandes Vieira, who, with the reſt of his Portugueſe accomplices, relied upon the ſuccours promiſed them from the Bahia; with what he had judged moſt proper for obviating the ſame. That the whole deſign of this conſpiracy was laid open to him by means of a certain writing, in form of an aſſociation, which was delivered to him by a Portugueſe ſervant of the ſaid Vieira, together with a letter, in which he deſired him to ſubſcribe the ſame, there being no more than two who had ſigned it at that time, viz. John Fernandes Vieira, and Lewis da Coſta Sepulpeda. The contents of this aſſociation were, that they promiſed to riſe in arms againſt this ſtate, and to ſacrifice their lives and eſtates for the recovery of the Dutch Brazil under the obedience of the King of Portugal. That indeed he had ſigned the ſaid aſſociation, but had given immediate notice thereof to Fernando Vale and a third perſon; and that he, together with Mr. Vale, had cauſed the before-mentioned letter, directed to the great council,

to be delivered to Merkado the phyſician. That the inſurrection was intended to extend all over Dutch Brazil, but that the inhabitants of the captainſhip of Parayba were moſt to be feared, as being moſt indebted, and, conſequently, bearing an ill-will to our government. That their main deſign was to ſurpriſe one of our forts, on or near the ſea-ſide, whereby they might ſecure themſelves a place to receive ſuccours from the Bahia; from whence they expected to be aſſiſted with two men of war, and three or four frigates. That he had ſigned this aſſociation barely out of fear of Vieira, who had threatened thoſe that ſhould refuſe with no leſs than death, and had cauſed ſeveral to be murdered upon that account."

His confeſſion agreeing in all points with what Fernando Vale had depoſed before, and being all that time ſorely afflicted with the gravel, he was diſpenſed with from any further examination.

The council being by this depoſition of Karvalho fully convinced of the treachery of Vieira and his adherents, it was reſolved to attempt once more the taking of the ſaid Vieira, if perhaps he might as yet lurk ſomewhere or other near the Receif, and of his factor Mor Manuel de Souſa, engaged in the ſame deſign; as likewiſe of Antonio Bezerra and Amaro Lopez, both inhabitants of the Vergea, but in vain. Thoſe who were ſent upon that errand bringing back no other ſatisfaction, than that they were not to be met with thereabouts; and that beſides that, Antonio and Manuel Kavalkanti, Antonio Bezerra, John Peſſo, and Coſmo de Kraſto, were the ſame day retired out of the Vergea to the Matta. The ſame day Captain Wiltſchut was ordered to ſeize the public notary, Caſpar Pereira, dwelling in St. Lawrence, who was ſuppoſed to have drawn the before-mentioned aſſociation; and it was reſolved to ſend a pardon to Antonio Kavalkanti and John Pais Kaeral, who having a great family at home, might thereby be prevailed upon to quit the party of the rebels, whereby we ſhould both weaken that of the enemy, and get a further inſight into their deſigns. Antonio de Bulhous being examined at the ſame time, ingenuouſly confeſſed that he had not the leaſt knowledge of the conſpiracy; Sebaſtian Karvalho being, notwithſtanding his former confeſſion, detained priſoner upon ſuſpicion till the 4th of Auguſt, was, at his requeſt, diſmiſſed by the great council, after having given ſufficient proof that he was one of the three who wrote the letter concerning the intended conſpiracy to the council.

The 14th of June, orders were given to all the inhabitants of the Receif, and thoſe living upon the back of the river, to ſurround their dwelling-places with palliſadoes, under forfeiture of two hundred gilders. And to render the companies the more complete, and to expoſe our men to as little danger as might be of being ſurpriſed by the enemy, all the ſafeguards were commanded to be withdrawn by Mr. Haus, near the Receif, and in Serinham by Captain Fallo, who was likewiſe ordered to remove the garriſon of Huna to another place of more ſtrength. The better to ſupply the ſcarcity of proviſions in the forts, which, for want thereof, might be in danger of falling into the enemy's hands, orders were diſpatched to the chief commanders, to ſeize upon what quantity of farinha (or meal) they ſtood in need of for the uſe of their reſpective garriſons among the inhabitants of the country, which they were to be paid for by the commiſſaries of the company. It was alſo thought neceſſary, that for the greater ſecurity of Maurice's Town, the ditches of the fort Erneſtus ſhould be made larger, as likewiſe the Quinqueregular fort, which was put in execution by Haus, as Vice-admiral Lichthart took care to have two ſpy-ſhips poſted, one betwixt the Quinqueangular fort and the fort Bruin, the other beyond Baretta, to prevent any ſurpriſe on that ſide at low-tide; it was alſo reſolved not to let any ſhips or boats go out of the Receif without

a paſs

a paſs from the great council. The major of the city militia was ordered to keep the reſt of his officers with the ſoldiery in readineſs againſt the 17th, to paſs the review, the ſame day being alſo appointed to the garriſon for that purpoſe; ſeveral new commanders were alſo choſen for the militia, inſtead of thoſe that were ready to return into Holland. The ſame day Paul Linge ſet out on his journey into Parayba, being furniſhed with fifteen hundred ſoldiers for neceſſary occaſions: and Bernardino Karvalho, who had abſconded for ſome time, had, at his requeſt, leave granted him to come to the Receif to anſwer for himſelf.

The 15th, John Peſſoa, maſter of the ſugar-mill Pantelio, one of thoſe that were ordered to be ſecured, deſired leave alſo, in a letter to the council, to appear before them, his flight being occaſioned not by his guilt, but only fear, which was granted him, as well as the requeſt of Father Lawrence Alkunha, upon the ſame account.

On the 16th, early in the morning, we received ſecret intelligence, that Andrew Vidal, at the head of one thouſand Portugueſe, and Kamaron with d'Indeos Rondelas, and Henry Dias, with a body of armed negroes, had poſted themſelves above St. Anthony, near the ſugar-mill Topekura. The ſame day John Karnero de Maris, and Franciſco Dias del Gado, both maſters of ſugar-mills in the diſtrict of Pojuka, ordered to be apprehended, were brought priſoners to the Receif, and Amador da Rouje, and Pero Marinha Falkao, inhabitants of St. Anthony, who had hitherto abſconded, did aſk permiſſion to come to the Receif to anſwer for themſelves, which was eaſily granted.

It was then taken into deliberation by the great council, whether, according to the laſt intelligences received of the enemy's deſigns, it were not moſt expedient to remove our ſmall camp from St. Lawrence to Moribeca, which, after ſome debates, was agreed upon accordingly, thereby to ſecure the paſſage of the river Sangea, and conſequently to remain maſters of the country as far as the Cape of St. Auſtin, from whence both the camp and the Receif might conveniently be ſupplied, both with farinha and cattle; whereas on the contrary, if the enemy ſhould be poſſeſſed of it, he might (as had been done in the former war) cut off all ſupplies coming from the ſouth to the Receif.

Purſuant to this reſolution, orders were ſent to Captain Wiltſchut to march immediately to Moribeca, to expect there the coming of the Brazilians, and ſome further ſuccours: in the meanwhile, to poſt himſelf in the church, and to fortify the ſame againſt any ſudden attack: and the aldermen of Maurice's Town were ordered to buy up the neceſſary proviſions, both of farinha and cattle, about Moribeca, for their uſe. A proclamation was alſo iſſued, commanding all the inhabitants of Serinham, Pojuka, St. Antonio, and Moribeca, without any exception, to repair well armed, both horſe and foot, with all poſſible ſpeed to St. Antonio, there to liſt themſelves for the defence of the open country, under the command of Colonel Gaſpar Vander Ley, and Lieutenant-colonel John Heck: thoſe that were not able to maintain themſelves at their own charge, being to receive their proviſion from the company, like other ſoldiers: the ſaid colonel and lieutenant-colonel offering at the ſame time, to furniſh fifteen hundred Alqueras or meaſures of farinha, for the uſe of our garriſons, for ready money.

The ſame day the great council received a letter from Antonio Kavalkanti (unto whom they had lately ſent his pardon), in which he proteſted, that neither he nor the reſt of the inhabitants of the Vergea were concerned in any cabals againſt the ſtate, their flight being occaſioned only by fear of being impriſoned upon ſuſpicion, raiſed againſt

againſt them by their enemies. The anſwer of the council was to this effect, "That if he knew himſelf innocent, he ſhould return to his mill, this being the only means to recover his former reputation."

The great council having great reaſon to ſuſpect, that Kamaron would endeavour to bring the Brazilians under their juriſdiction over to his party, reſolved, in order to ſecure them in their intereſt, to treat with Liſtry, their commander-in-chief, to perſuade them, to ſend their wives and children into the Iſle of Tamarika, under pretence of ſecuring them againſt any attempts of the enemy, to which they might in all probability be expoſed in the open villages; but in effect, to keep them as pledges of their fidelity.

The ſame day the council received ſecret intelligence from Antonio d'Olivera, that the ſuccours ſent to the rebels from the Bahia, conſiſted in a conſiderable number of Portugueſe, under the command of the brother of Kavalkanti; of four hundred Brazilians, under the command of Kamaron; three hundred Indeos Rondelas from Sertoa; and fifty negroes, under command of Henry Dias.

On the ſame 16th of June, Mr. Sloteniſki, enſign of the guards, was ſent abroad to be at the campaign, with eleven fire-locks, and twelve Brazilians, who, returning the 24th of June, gave the following account to the great council: That he took his way from the Receif directly to St. Lawrence, and from thence directly to the village of St. Michael; where being joined by his Brazilians, he marched through St. Franciſco to Kaſura, from thence to Geyta, and ſo further through the Matta to St. Sebaſtian, where all the inhabitants had left their houſes. At St. Sebaſtian he paſſed the river Topikura, and coming to John Fernandes Vieira's park, met there with good able horſes. The negroes told him, they had orders from their maſter to fly from before the Dutch, but to furniſh the Portugueſe with what they deſired. From thence he marched to Antonio, and in his way thither did light upon a houſe belonging likewiſe to John Fernandes Vieira, where he found about fifty or ſixty ſheep, with good ſtore of poultry, intended for the uſe of the ſick belonging to thoſe rebels, or thoſe come to their aſſiſtance from the Bahia. They fore-warned him not to advance too far, he being likely to meet with ſome troops in the park belonging to the fathers of St. Bento; but coming thither, found both the Portugueſe and negroes fled. From thence he marched to a houſe belonging to Michael Fernandes, who above three months before had been ordered by John Fernandes Vieira, to provide a ſufficient quantity of farinha for the uſe of the ſuccours expected from the Bahia; which he lately had tranſported from thence to Pedro de Alkunha, where was the rendezvous of two companies of the rebellious inhabitants, where the ſaid Michael expected a good ſtore of cattle, bought by Vieira for their uſe, according to the information of a negro, brought by Sloteniſki to the Receif. Near the park of Don Pedro d'Alkunha, he met with the ſame mulat who had ſhot Captain Waldeck, and with two Hollanders who had committed murder, and were never pardoned. John Fernandes Vieira had promiſed to be with them againſt Midſummer-day. From thence Sloteniſki marched directly to Una, and ſo further to St. Luce, but met with nobody there except one monk, and ſo returned to the Receif.

On the 17th of June it was reſolved by the great council, with the conſent of the council of juſtice, to iſſue a proclamation for a general pardon, except ſome few of the ring-leaders of the rebellion. The proclamation was as follows:

A Pro-

A Proclamation for a general Pardon.

" The great council of Brazil makes known to every body whom it may concern, that they being ſenſible, to their grief, how many of their ſubjects, having been miſled by ſome of the ring-leaders of the rebellion, have left their mills, wives and children for fear, as has been inſinuated to them, of being diſturbed, plundered, and killed by our ſtraggling parties: we being willing to provide againſt it, and to contribute as much as in us lies, to the proſperity of our ſubjects, and their eſtates, have thought fit to publiſh their intention, to be, to defend and protect the inhabitants of the open country, againſt all evil-intentioned perſons to the utmoſt of their power. And to reduce thoſe who have left their habitations, to obedience, and prevent their utter deſtruction, we promiſe our pardon to all ſuch as ſhall within five days after ſight of this our proclamation, make their perſonal appearance in the Receif, not excepting thoſe who have been actually engaged in the ſaid rebellion (unleſs they are among the number of the chief ring-leaders), provided they leave the rebellious party, and return to their former obedience; and that they ſhall enjoy the quiet poſſeſſion of their mills and lands as before, under our protection; under condition however, that they ſhall be obliged to take a new oath of allegiance to the ſtate. Thoſe on the contrary, who ſhall perſiſt in their rebellion, or ſhall aſſiſt the rebels under what pretence ſoever, are hereby declared enemies of the ſtate, who have forfeited their lives and eſtates, whoſe perſons and eſtates ſhall be liable to be proſecuted with fire and ſword," &c.

This proclamation being immediately tranſlated into the Portugueſe tongue, was ſent the next morning to St. Antonio and the Vergea to be publiſhed there; ſeveral copies were alſo diſtributed among the friars, in order to publiſh them from the pulpits, and cauſe them to be affixed to the church-doors.

The 18th, good ſtore of proviſion and ammunition was ſent to the fort Keulen and Rio Grande, and the garriſons of both theſe places forewarned to keep upon their guard. At the ſame time the proclamation of pardon was ſent thither to be publiſhed; and Antonio Parayba, chief of the Brazilians in thoſe parts, was ſummoned to keep his Brazilians in readineſs with their arms, whenever they ſhould be commanded to give proofs of their fidelity to the company.

The 19th of June, two inhabitants of Porto Calvo, that were landed but the ſame morning in a ſmall boat on the Receif, brought news to the great council, that Kamaron, at the head of the Brazilians, and Henry Dias, with his armed negroes, conſiſting in ſeven companies, had poſted themſelves in the Alegoas, near the ſugar-mill Velho; that their number was increaſed ſince to four or five thouſand men, by the conjunction of thoſe who were paſſed the river St. Franciſco through the Matta, and that they had begun to commit open hoſtilities; ſo that now the council had not the leaſt reaſon to doubt any further of the deſign of the Portugueſe. The commander of Porto Calvo ſent word much to the ſame purpoſe, and that he prepared for a vigorous defence. The firſt effects of this inſurrection broke out in the diſtrict of Pojuka, and conſidering that our whole force there conſiſted only in thirty men, under Jacob Flemming, a lieutenant, orders were ſent him to retreat to St. Antonio, there to defend themſelves with their joint forces. The firſt beginning of hoſtilities was made by thoſe of the Pojuka, by ſeizing upon two boats, all the paſſengers of which they took priſoners, and ſlew them afterwards, except one ſeaman, who had the good fortune to eſcape. This done, the inhabitants both of the village and the open country choſe for their head Tabatinga Amador d'Arravio, whereby they cut off our communication with the Cape Auſtin by

land, and all about to the ſouth, beſides that, the fort on the ſaid cape could not, but with great difficulty, be ſupplied with water from the river.

The 20th of June, a Brazilian arrived very early in the morning in the Receif; his errand to the council was, that he being ſent by John Blaar, from Porto Calvo, with letters to the great council, was ſet upon by thoſe of Pojuka, near Kamboa, who took from him the ſaid letters, and killed his companion. For the reſt he told them, that Kamaron was poſted in the diſtrict of Porto Calvo, and that Captain John Blaar was in the fort. A council being called, to conſider of the beſt means to ſecure the Dutch Brazil againſt any attempts of the enemy, the firſt thing that fell under debate was, whether, according to the general advice of thoſe of the inhabitants, who wiſhed well to our government, it were not moſt expedient for our defence, to form a camp to make head againſt the enemy in the field; who, if once maſter of the open country, would force the inhabitants to join with him, and cut off our proviſions, without which we could not ſubſiſt long. The next thing to be taken into conſideration was, where to find forces for this camp, the garriſons being ſo weakly manned, as not to be able to ſpare any, and the body under Captain Wiltſchut conſiſting only of one hundred and twenty men, beſides the three hundred Brazilians, to be joined with him. Conſidering, therefore, that the whole force in the Alegoas conſiſted only of two companies, under the command of Mucheron, a number not any ways proportionable to the extent of ſo large a tract of ground; it was judged moſt convenient to make a virtue of neceſſity, and to draw them from thence to the Receif, as indeed they had been ordered before. But their way by land being cut off by the rebels of Pojuka, a veſſel, which lay ready to go out a cruiſing, was ordered to Porto Franciſco, with others to Mucheron, to embark forthwith thoſe forces aboard her, without having any regard to the baggage; but the reſt, which could not be put aboard the veſſel, ſhould be ſent by land to Rio Franciſco, to reinforce Captain Koin, for the better defence of that place. Captain Fallo was likewiſe ordered to march with the garriſon of Serinham to St. Antonio, it being not likely that the troops in Serinham ſhould be able to make head there, after the coming of Kamaron into Porto Calvo, it being an inland country.

The ſame day, forty new-liſted ſoldiers were ſent to Tamarika, under command of Captain Peter Seuliin, maſter of the ſugar-mill Harlem; becauſe this iſland was of the greateſt conſequence to us; and the garriſons of the fort Orange, and the town of Schoppe, conſiſting each of one company, were very weak, and the armed inhabitants did not amount to above one company more.

The ſame day Mr. Bas and Mr. Van de Voerde, counſellors of the court of juſtice, were ordered to examine Gaſper Pereira, the public notary, concerning his drawing of the inſtrument of aſſociation; as likewiſe John Kariero de Maris, Franciſco Dias Delgado, maſters of ſugar-mills, in the diſtrict of Pojuka, and Sebaſtian Karvalho, concerning what they knew of the intended conſpiracy.

Karvalho declared a ſecond time, at the houſe of Lieutenant-colonel Haus, that ſome days ago (he could not remember exactly which), a certain Portugueſe ſervant, whom he knew not, did come to him in the name of John Fernandes Vieira, with a letter, in which the ſaid Vieira deſired him to ſign the incloſed writing, drawn in form of an aſſociation, to take up arms againſt the government, as ſoon as they ſhould receive any ſuccours from the Bahia; which at that time was ſubſcribed only by John Fernandes Vieira and Lewis da Coſta Sepulpeda; but, as he ſuppoſed, was to be carried to moſt of the inhabitants. He further declared, that he refuſed to ſign the ſaid writing upon the bare letter of John Fernandes Vieira, and the hand-writing being unknown

known to him, he ſent both the letter and inſtrument of aſſociation back by the ſame lad that brought it, with his anſwer by way of mouth, that he could not ſubſcribe it. Having more maturely weighed the matter, he ſent the ſame evening to his friend, Fernando Vale, to deſire him to give him a meeting the next morning upon the hills of Garapes; which being done accordingly, it was agreed among them to give notice of this conſpiracy to the great council, in a letter without a name. This letter, with the ſubſcription of *Plus ultra*, was writ by Vale, and about ten days after given him to read in a baker's houſe in the Pont-ſtreet, and afterwards given to Abraham Merkado, the phyſician, who delivered it to the great council.

The ſame day, the 20th of June, the great council received a letter from Mr. Ley and Hoek, dated at St. Antonio, importing, that the whole Fregeſie had taken up arms, and made ſixteen or eighteen Dutch inhabitants priſoners; that they had fortified the church againſt thoſe of Pojuka, whom they did not queſtion to force from thence, provided they received any ſuccours from the Receif. The council having taken the whole matter into ſerious deliberation, and conſidering with themſelves, that, as the caſe then ſtood, they had no great reaſon to fear any rebellion in the north, in Parayba, and Rio Grande, as long as our fleet remained near the Red Land, and judging it highly neceſſary to bring the rebels in Pojuka to reaſon, and by their puniſhment to deter the reſt from attempting the like, they ordered Lieutenant-colonel Haus, with a detachment of a hundred men, to march the next morning to Moribeca, there to join with Captain Wiltſchut and the Braziliians, and ſo continue their march to St. Antonio; from whence they were, with their joint forces, to go directly againſt the rebels of Pojuka, to reduce them to obedience; it being otherwiſe to be feared that they would cut off all communication betwixt the Receif and the garriſons to the ſouth. This expedition proved ſo ſucceſsful, that the rebels were put to flight, and Lieutenant-colonel Haus made himſelf maſter both of the town and convent, forcing them to quit all the paſſes thereabouts; and forty priſoners were releaſed, whom they had loaded with irons in the ſaid monaſtery. But having received intelligence of the approach of Kamaron with his whole body againſt him, he deſired further ſuccours from the great council to keep the field; but the garriſon of the Receif being too much weakened already, they could ſend him no other reinforcement till the expected ſuccours ſhould arrive from Holland.

The 21ſt, it was reſolved by the great council, to proclaim a general faſt all over Dutch Brazil, to be kept the 28th of June, to return thanks to God Almighty for the great mercy ſhewn to them on ſeveral occaſions, but eſpecially of late, in the timely diſcovery of the treacherous deſigns of their enemies, who intended to have ſurpriſed them when they were leaſt aware of them.

The deſign of this conſpiracy was laid thus by the Portugueſe: they intended, in the Whitſuntide holidays, to make ſolemn rejoicings, with feaſting, tournaments, and ſuch like, on occaſion of ſeveral weddings appointed for that purpoſe, unto which were to be invited all the chief men of Dutch Brazil, both civil and military; whom, after they were flushed with wine, they intended to murder, in imitation of the Sicilian veſpers, or the noted Pariſian wedding; not queſtioning but that, when the heads of the Dutch Brazil were cut off, the reſt, when attacked at once in divers places, would fall an eaſy prey into their hands. But being prevented in this bloody deſign for that time, Midſummer-day was pitched upon, as moſt proper for the execution of it, when the ſhips were departed out of the harbour of the Receif. For the Portugueſe were not ignorant, that we, having received no freſh ſupplies, eſpecially of gunpowder, for a conſiderable time, out of Holland, our magazines were but very indifferently ſup-

plied, both with ammunition and proviſions; and that conſequently we muſt ſoon be reduced to great extremity, if they were maſters of the field: they knew alſo, that all our ſhips, except two, were ready to ſail with the firſt fair wind, being already fallen down to the Red Land; thus being ſenſible of our weakneſs, the Portugueſe propoſed to themſelves no leſs than the conqueſt of the whole Dutch Brazil at one ſtroke. But the whole deſign being diſcovered before Midſummer-day, it vaniſhed into ſmoke, both ſides betaking themſelves to decide the matter by arms.

The Portugueſe pretended not ſo much the allegiance due to their King, as liberty of conſcience; notwithſtanding which, we have all the reaſon in the world to imagine, that this inſurrection was undertaken not only with the knowledge, but alſo at the inſtigation of the court of Portugal, and of thoſe of the Bahia; it being very improbable that Kamaron, Henry Dias, and the reſt of the ring-leaders, ſhould, without the approbation of the King of Portugal, have attempted to attack us by open force. Beſides this, Mucheron declares to have read, in a Portugueſe commiſſion, theſe words: "This revolt and war, undertaken for the honour of God, the propagating of the Roman Catholic faith, for the ſervice of the King, and common liberty." He further adds, that he has heard ſeveral Portugueſe ſay, that if they miſcarried in their deſign of chaſing us out of Brazil, to deſtroy all with fire and ſword, thereby to bereave us of all future proſpect of receiving any benefit from thoſe lands; which done, they would retire with their wives and children to the Bahia, or ſettle in ſome more remote place, where they might be ſecure againſt any attempts of the Dutch. There have indeed been ſome who, conſidering the unſettled eſtate of the King of Portugal, and the odd fancy of his reign, have thought it very improbable he ſhould involve himſelf in a war with us, or have given his conſent to this inſinuation; but the event has ſufficiently contradicted that opinion.

The 22d of June a letter was delivered to the great council, ſigned by John Fernandes Vieira, Antonio Kavalkanti, John Peſcoa, Manuel Kavalkanti, Antonio Bezerra, and Coſmo de Craſto Paſos, in which they complained, that they being a conſiderable time ago accuſed by the Jews of a treacherous deſign againſt the government, had been great ſufferers upon that ſcore; that now they being informed by the ſame Jews that they were in danger of loſing all their mills and lands, to be given to certain Hollanders, who were ſent for for that purpoſe, they deſired that the time of five days appointed in the laſt pardon might be prolonged, as being too ſhort for a buſineſs of ſuch moment, and that the ſaid pardon might be granted without exception; which they refuſing to grant, they did hereby proteſt before God and all the Roman Catholic Princes, that they thought themſelves innocent, and not in the leaſt guilty of all thoſe miſeries which might enſue from this refuſal hereafter.

The 23d, in the morning, the council was aſſembled to conſider of the ſaid letter; where, after ſeveral harangues upon the preſent ſtate of our affairs, and the enemy's deſign againſt us, they were divided in their opinions, ſome being for granting a general pardon, without the leaſt exception, as the caſe ſtood with us at preſent, when we were deſtitute of ſufficient proviſion, ammunition, and men; others maintained, that a letter which contained ſo many notorious untruths deſerved not the leaſt anſwer; others were of another opinion. Whilſt they were thus debating the matter, letters were brought to the council, written by Lieutenant-colonel Haus, from St. Antonio, that he was ready to attack the rebels of Pojuka the next day, not without hopes of good ſucceſs, ſo that the council, conſidering of what moment the event of this action was to their affairs, reſolved to adjourn the ſaid debate till the next day, when they hoped to know the iſſue of the whole enterprize.

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The 28th of June Mucheron arrived with his two companies in the Receif, from the Alegoas, where it was reſolved to diſpoſe his own company in Quinqueregular fort, of which, as a place of great conſequence, he was made commander-in-chief; the other of Captain William Lambert was put in the fort Erneſtus.

By letters from Paul Linge, governor of Parayba, dated the 25th of June, we received advice that the inhabitants thereabouts offered to give him freſh aſſurance of their fidelity, by taking a new oath of allegiance, and that he did not obſerve the leaſt motion towards an inſurrection.

Jacob Daſſine, maſter of the ſugar-mill Supapema, who had been abroad with a good party, made his report to the council, that he had been at ſeveral ſugar-mills, where he had met with about two hundred of the enemy's troops divided into divers ſmall bodies, compoſed of Portugueſe, mulats, and negroes, under the command of Amador de Araouje, Antonio de Craſto, one Taborda, and Henry Dias.

The 29th of June, by ſpecial commiſſion from the council, Balthaſar Vander Voerden examined Antonio d'Oliveira, concerning the deſign of the Portugueſe formed againſt our government. He declared, that about the beginning of this preſent June, being then at the houſe of Sebaſtian de Karvalho, together with Franciſco d'Oliveira, Bernardin Karvalho, and the before-mentioned Sebaſtian de Karvello, a certain Portugueſe very well known to them all, delivered to him a letter, directed to all the perſons there preſent, with another piece of writing unſealed, which he began to read; but finding the contents to be, that the under-written perſons promiſed to be, and declare themſelves faithful ſubjects of the King of Portugal, and that John Fernandes Vieira, Franciſco Beringel, Antonio de Sylva, and ſeveral more, whoſe names he would not look upon, had ſigned the ſame, he returned the ſaid writing, and refuſed to ſubſcribe the ſame, telling his ſon at the ſame time, "You ought rather to ſuffer your hand to be cut off, than ſign this paper;" and ſo went his way immediately, not any one of all there preſent having ſubſcribed their names at that time: he proteſted he knew not the hand-writing. After a more ſerious conſideration, he thought it requiſite to make a diſcovery of it, which he did accordingly within two days after to Matthew Reex, deſiring him to give an account of it to the great council; he declared further, that the ſaid writing was ſigned by above one hundred of the inhabitants.

The 30th of June, one Digos Lopes Leyte, who was not long ago taken priſoner by the Brazilians, was examined by Mr. Bulleſtraet, Dortmont, and ſome other military officers. His confeſſion was, that at the firſt beginning of the deſign of the Portugueſe againſt this ſtate, they had ſent a letter to the governor of the Bahia, Antonio Telles de Sylva, to crave aſſiſtance from him, which if he refuſed, they would ſeek for aid in Spain; and if they did not ſucceed there, they would rather ſurrender themſelves to the Turks, than endure any longer the ill-treatment they met with from the Hollanders. That nevertheleſs he had heard many dire imprecations made againſt John Fernandes Vieira; that he deſerved no leſs than the gallows, he having raiſed this rebellion for no other end, than thereby to free himſelf from the vaſt debts he owed to the company.

The ſame day it was agreed to ſend abroad a party of twelve ſoldiers and eight Brazilians, to fetch a good quantity of farinha from St. Lawrence, who were put to the rout near that place, ſo that very few eſcaped. At the ſame time the council received the unwelcome news, that ſome of the inhabitants of Iguaraſu had taken up arms againſt them.

In the beginning of July it was reſolved to draw the fortifications of Maurice's Town into a narrower compaſs, and to add a new line with a breaſt-work. This taſk

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was performed by the negroes belonging to the inhabitants of Maurice's Town and the Receif, under the conduct of Vice-Admiral Lichthart, who took care to have the ſame perfected, according to the model drawn by the engineer.

The ſame day advice was brought that John Lawrence Frances and John Dias Leyte, inhabitants of Iguaraſu, made it their buſineſs to incite the inhabitants to an inſurrection. Captain Sluyter ſent alſo word from Tamarika, that about eighty men, and one hundred and ten women and children, all Brazilians of the villages of St. Michael and Naſſau, were come into that iſland for ſhelter, and that the Brazilians of Otta intended to do the like. The magiſtrates and chief Portugueſe of Goyana, gave the council freſh aſſurances of their fidelity, provided they might, in caſe of neceſſity, be allowed to retire into the ſaid iſland, which was granted, and thanks given them for their loyalty. The magiſtrates of Iguaraſu adviſed, that Vieira had cauſed a declaration to be affixed in the ſugar-mills of Gonſalvo Novo de Lira, which they had ordered to be torn down, and ſent a copy of it to the council, aſſuring them, that they would take all poſſible care to keep the inhabitants thereabouts under obedience, though they found ſome of them much inclined to revolt.

At the ſame time Fernandes Vale was examined by Mr. Vander Voerde and Mr. Bas; he declared, that having received a letter from Sebaſtian de Karvalho, to meet him the next morning upon the hills Garapes, becauſe he had ſomething to communicate to him, concerning no leſs than their eſtates, lives, and honour; he, without mentioning any thing of it to his wife or brother, went thither on horſeback, accompanied only by a boy; notwithſtanding he happened at that time to be afflicted with the gravel; there he met Sebaſtian Karvalho, with one boy only, who told him, that he having received a letter, with another writing, containing a project of an inſurrection to be undertaken againſt the government, he thought it abſolutely neceſſary to give notice thereof to the great council; and that he deſired him to write a letter accordingly to the council; he being pretty well verſed in the Dutch tongue. That Vale aſked him, whether any body beſides himſelf knew of the matter; unto which he anſwered, that his brother Bernardin did; whoſe opinion was likewiſe to diſcloſe it to the council; hereupon they returning each to their reſpective homes, Vale writ a letter in Portugueſe, purſuant to the inſtructions he had received from Karvalho, for whom the ſaid letter was left to peruſe in a baker's houſe, on a public fair-day for the ſale of negroes; after which he had ſent the ſaid letter incloſed in another, to Dr. Merkado, deſiring him to ſee the ſame carefully diſpatched to the great council, without mentioning the contents thereof.

The great council receiving frequent intelligence that the Portugueſe from the Bahia intended to ſend a fleet to the aſſiſtance of the rebels, it was reſolved to ſend orders to the four ſhips, the Amſterdam, the Blackmore, the North Holland, and Groningen, then at anchor near the Red Land, in order to their return to Holland, to return forthwith to the Receif, the government ſtanding in great need of their aſſiſtance, to prevent the conjunction of the forces from the Bahia with the rebels. They received alſo letters from Lieutenant-colonel Haus, dated at Pojuka the 26th of June, aſſuring them that he had granted paſſes to above two hundred perſons that were returned to their duty; that two or three of the ring-leaders, excepted in the laſt pardon, ſued for the ſame favour, and that he had cauſed one Francko Godinho, one of the chief of the rebels, taken by his people, to be hanged on the gallows he had erected himſelf; that Amador d'Araouje being gone from thence with a hundred and fifty men to the Vergea, to join with Vieira, he expected their orders whether he ſhould follow him, he looking upon it as a feint to draw him from thence. He further told them, that with the

Brazilians and their wives and children, he was above five hundred ſtrong; and that unleſs they were ſoon ſupplied with proviſions from the Receif, they ſhould conſume all the cattle thereabouts.

The great council ſent an anſwer the ſame night to Lieutenant-colonel Haus, requiring him to grant free pardon to all who ſhould deſire it, not excepting the ring-leaders themſelves, thereby to weaken Amador d'Araouje and his party. That with what forces he could ſpare in Pojuka (after ſufficient proviſion made for the defence of the garriſons, according to their own diſcretion), he ſhould march to the Receif, in order to attack Viera, where they need not fear but to be able to ſubſiſt upon what the ſaid Vieira had laid up for the uſe of the expected ſuccours of the Bahia, and the cattle belonging to the rebels.

But whilſt Lieutenant-colonel Haus was employed in ſecuring Pojuka againſt their attempts, thoſe of the Vergea ſtrengthened themſelves with all poſſible diligence; to further which, John Fernandes Viera and Antonio Kavalkanti, who ſtyled themſelves the heads of this war, did not only affix their declarations round about Maurice's Town, and in Iguaraſu, inciting the inhabitants to rebellion, by promiſing them conſiderable ſuccours from the Bahia, but their parties alſo, which they ſent frequently abroad, forced thoſe of the open country to take up arms, killing ſuch as refuſed. The ſame was practiſed by Amador d'Araouje in Pojuca; ſo that, what with proviſions, what with threats and force, they got together a conſiderable body in the Vergea, we being not in a capacity to prevent it, becauſe what forces we had were in Pojuka.

But judging it abſolutely for our intereſt to ſtop as much as poſſible theſe proceedings, it was reſolved to arm ſome of the luſty young fellows with firelocks, which they were furniſhed withal by the citizens (there being none in magazines), and to join with them a detatchment of the garriſon, beſides a hundred Brazilians, that were lately arrived under Peter Potti.

Purſuant to this reſolution, Captain John Blaar received orders to put himſelf at the head of three hundred men, with whom he was to march with all imaginable ſecrecy from the Receif, and by lying in ambuſh near the paſſes, to endeavour to intercept ſome of the enemy's troops, not queſtioning but that out of the priſoners they ſhould be able to learn where Vieira was poſted with his main body, and of what ſtrength both he and the ſuccours from Bahia was reputed to be among them. He had ſtrict orders not to moleſt any of the inhabitants who were not in arms, but to protect them and their eſtates, and to receive thoſe who ſought for mercy, and bring them into the Receif. Orders were alſo ſent to Lieutenant-colonel Haus to march with what forces could poſſibly be ſpared out of the garriſons to the ſouth, to the Vergea, in order to join with Captain Blaar, and endeavour to attack the heads of the rebels, which, if they could once put to the rout, might be a means to quench the whole fire of rebellion, and to reſtore peace to the Dutch Brazil.

The firſt of July it was debated in council, whether all ſuch perſons as were ſuſpected to have a hand in the conſpiracy, ought not to be excepted in the pardon, or whether it ſhould be granted to all that deſired it without exception. The laſt was reſolved upon as conducing moſt to the quieting the ſubjects minds.

The 2d in the evening, the council received advice from Captain Blaar, that he was poſted at Mongioppe, with an intention to attack the enemy, wherever he met them.

The 3d he marched to Iguaraſu.

The 4th, they received letters from Lieutenant-colonel Haus, from St. Antonio, importing that after having left a garriſon in Pojuka under Lieutenant Flemming, and

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one hundred Brazilians in St. Antonio, he was ready to march to the ſugar-mill Velho, and from thence to Moribeca, where he would expect their further orders.

At the ſame time the inhabitants of Goyana having fortified themſelves in a certain houſe, belonging to Liſtry their chief magiſtrate, they deſired the council to furniſh them with forty muſquets, for the uſe of ſuch among them as were unprovided with arms. Their requeſt was granted, and poſitive orders ſent at the ſame time to Servaes Karpentier, to take this opportunity to diſarm all the Portugueſe, either by fair or foul means; to effect which, he ſhould keep the Dutch together in a body as much as poſſibly he could; his anſwer was, "he would endeavour to diſarm the Portugueſe by fair means, he wanting power to do it by force." Beſides which, he gave notice in his letter dated the 11th of July, that every thing remained quiet hitherto in Goyana, but that the Brazilians, (contrary to his expreſs orders) claiming a prerogative to be commanded by none but their own officers, purſuant to a decree of the council of Nineteen, had, in their paſſage to Tamarika, plundered ſeveral of the Portugueſe inhabitants.

Moſt of the rebellious Portugueſe had left their wives and children in their houſes and mills, which, as it tended to their no ſmall conveniency, ſo ſome of the faithful Portugueſe inhabitants did propoſe on the 3d of July to the great council, whether it would not be for our intereſt to oblige thoſe wives and children to quit their houſes and mills, and to ſend them after their huſbands.

Several reaſons were alledged for it:

1. Becauſe the rebels being encumbered with their families, muſt of neceſſity make greater conſumption of farinha, and other proviſions, which would oblige them the ſooner to alter their meaſures, and to change their places.

2. That thereby they would be much diſheartened, for fear of a vigorous attack.

3. That they would not be able to march or to change their camp ſo conveniently as before, or to lurk in uninhabitable places.

4. That by the removal of theſe women, who ſerved them as ſpies by the help of their negroes, we ſhould take away all opportunity from them, to be informed of our deſigns.

All which reaſons being well weighed, the following proclamation was publiſhed:

A Proclamation for the Removal of the Rebels' Wives and Children.

"The great council of Brazil, by the authority of the States-General of the United Provinces, His Highneſs the Prince of Orange, and the Weſt India company, make known unto every body, that whereas many of thoſe who have ſided with the three head rebels, John Fernandes Vieira, Antonio Kavalkanti, and Amador d'Araouje, againſt this ſtate, have left behind them their wives, children, and families, which hitherto continue in their former dwelling-places; we do by theſe preſents ſtrictly command all the wives and children, whether male or female, whoſe huſbands and fathers are engaged with the rebels, to leave their reſpective houſes within ſix days after the publication of this proclamation; and to repair to their reſpective huſbands and fathers, or elſe to incur the penalties due to rebels; it being our reſolution not to take the ſame into our protection; nay, to take away our ſafe-guards from all ſuch of our ſubjects as ſhall be found to harbour or conceal theſe before-ſaid wives, children, and their effects, unleſs the huſbands and fathers of theſe wives and children ſhall, within the limited time of ſix days, return to their dwelling-places, and ſue for pardon to the council.

"Thus decreed in the aſſembly of the great council of Brazil."

About this time near one thouſand Brazilians, among whom were three hundred and ſixty-nine men, the reſt women and children, being retired to the iſle Tamarika, to ſhelter themſelves againſt the rebellious Portugueſe, Mr. Dormont, counſellor of the finances, was ſent thither in the beginning of July, as ſupreme director of the territory of Iguaraſu, to ſecure that iſland which was of ſo great conſequence to the ſtate, in our intereſt.

The 5th of July, a proclamation was iſſued againſt the three chief rebels, John Fernandes Vieira, Antonio Kavalkanti, and Amador d' Araouje, declaring their lives and eſtates to be forfeited, offering a reward for the apprehending of them, as follows:

A Proclamation for apprehending the three head Rebels.

" The great council of Brazil, by authority of the States-General of the United Provinces, His Highneſs the Prince of Orange, and the Weſt-India company, ſend greeting. Be it known by all, that whereas we are fully ſatisfied that John Fernandes Vieira, Antonio Kavalkanti, and Amador d' Araouje, ſetting aſide their allegiance, have a conſiderable time ago entered into a conſpiracy againſt the ſtate, ſending their letters throughout ſeveral Fregeſies of our juriſdiction, to excite our ſubjects to a revolt; that they have gathered and ſtill are gathering forces to maintain their treacherous deſigns againſt this ſtate, forcing our faithful ſubjects to join with them, threatening with death ſuch as refuſed to enter into this rebellion; nay, having cauſed ſeveral, as well Hollanders as Brazilians, to be murdered upon that ſcore. That they have affixed and publiſhed declarations in ſeveral places, tending to the diſquieting and diſturbing the minds of the ſubjects of this ſtate, with the name and title of governors of this war, (whereas they ought to have ſtyled themſelves faithleſs traitors) covering their villainous deſigns under the name of the Divine Majeſty, beſides many other miſdemeanors, whereby they have rendered themſelves guilty of high treaſon. It is for theſe reaſons that we thought it our duty to declare the above-named John Fernandes Vieira, Antonio Kavalkanti, and Amador d' Araouje, and by theſe preſents do declare them enemies of this ſtate, diſturbers of the public peace and our good ſubjects, rebels and traitors againſt their lawful magiſtrates; and to have forfeited all their privileges, rights, lives, and eſtates; and as ſuch, we grant not only free leave to every one to apprehend or to kill the ſaid John Fernandes Vieira, Antonio Kavalkanti, and Amador d'Araouje, but alſo promiſe a reward of one thouſand Charles's gilders, to ſuch or ſuch perſons as ſhall do ſo ſignal a piece of ſervice to the company, as to apprehend either of thoſe perſons, ſo as they may be brought to juſtice; and the like reward to any perſon who ſhall kill either of the ſaid traitors, beſides his pardon for any offence he may have committed before; and if he be a ſlave, his liberty, together with the reward. We alſo ſtrictly command by theſe preſents, all the inhabitants of this ſtate, of what quality, degree or nation ſoever, that they ſhall not preſume to aſſiſt the ſaid rebels with arms, proviſions, money, men and ammunition, or harbour, conceal, or adviſe them in any reſpect, or keep the leaſt correſpondence with them, under pain of being declared traitors, and to be puniſhed as ſuch with the utmoſt rigour," &c.

Whilſt the great council were thus endeavouring to quench the flame of rebellion, they received frequent intelligence, that beſides the ſuccours already come to the rebels from the Bahia by land, by way of Rio St. Franciſco, they expected a conſiderable fleet from thence; it was reſolved to ſend once more ſome deputies to the governor Antonio Telles da Sylva, to repreſent to him that Kamaron and Henry Dias being under his juriſdiction, their entering in an hoſtile manner into the Dutch Brazil, could not

not be interpreted otherwiſe than a breach of the truce concluded betwixt the king of Portugal and Their High and Mightineſſes the States-General.

The perſons pitched upon for this purpoſe were Balthaſar Vander Voerde, counſellor of the court of juſtice, and Dirk Van Hoogſtraten, then commander-in-chief to the Cape of St. Auſtin, who being looked upon at that time as a very loyal perſon, was ſent for the 4th of July, leaving Barent Van Tichlenborgh, to command in his abſence. Francis Kyrnen Springapple was appointed their ſecretary, and Gerrard Dirk Laet, Alexander Sylve, and Jacob Swearts to attend them as gentlemen.

Their inſtructions were, to lay open to the governor the true reaſon and occaſion of this inſurrection, and the ring-leaders thereof, who would never have dared to attempt it without the hopes of ſuccours, which were ſent them by land through Rio St. Franciſco: they were to ſearch into his intentions as near as poſſibly they could, and to deſire him to recal Kamaron and Henry Dias with their troops out of the Dutch Brazil, and to puniſh them according to their deſerts. If they found the governor not inclined to give them due ſatisfaction, by recalling thoſe troops either by public proclamation, or ſending ſome perſon of authority to bring them back, or by giving them ſome other real demonſtrations of his ſincere intention before their departure, they were to proteſt to, and to declare themſelves innocent of all the damages, murders, and rapines as well againſt the Hollanders, as Portugueſe and Brazilians, already committed or to be committed by thoſe forces. They were to declare to the governor, that they would look upon it as an open breach of peace and act of hoſtility, of which they muſt give an account to their maſters, who, without queſtion, would know how to make themſelves amends for the damages ſuſtained; and to proteſt once more, that the Dutch declared themſelves innocent of all the miſeries which muſt enſue from their taking up arms for their own defence, after their ſo reaſonable requeſt had been rejected.

Accordingly they ſet ſail the 9th of July 1645, from the Receif, in the ſhip called the Roebuck, and coming to an anchor the 17th in the Bahia, were, in the name of the governor Antonio Telles da Sylva, complimented aboard their ſhips by ſeveral Portugueſe gentlemen, from whom they aſked leave to come aſhore, having ſeveral matters of moment to propoſe to him in the name of the great council of Brazil.

The next day being the 18th of July, about noon, Lieutenant-colonel Andrew Vidal, and Captain Pedro Kavalkanti, with ſome other officers, came in a brigantine to fetch them to the palace; where, after the firſt compliments, they delivered their credentials, telling the governor, that out of thoſe he would underſtand that they were ſent to treat with him of certain points, which they were ready to propoſe, either now or whenever he ſhould be diſpoſed to receive them. The governor, after the uſual return of compliments and peruſal of the credentials, told them, that he was ready to hear them whenever they pleaſed; whereupon they propoſed,

That ſome Portugueſe ſubjects of Their High and Mightineſſes the States-General of the United Provinces, have entered into a cabal, in order to take up arms and attack Pernambuko; to effect which, they have by certain letters ſolicited their fellow-ſubjects to enter into a rebellion, and provided themſelves with arms, in hopes of ſuccours from abroad. That in the beginning of May, Kamaron and Henry Dias with their Brazilians and negroes, and ſome Portugueſe, being on their march in an hoſtile manner to Pernambuko; John Fernandes Vieira, Antonio Kavalkanti, and Amador d'Araouje, with other Portugueſe their accomplices, had no ſooner notice of their coming, but they abſconded from their houſes, gathered what forces they could, ſome by force, ſome otherwiſe, publiſhed their declarations, ſtyling themſelves governors of this war for the public liberty; all which they undertook upon hopes of being backed by foreign troops.

That

That through God's mercy their maſters did not want power to protect their faithful ſubjects, and to puniſh the rebels according to their deſerts: but as they could not comprehend what it was that could induce theſe foreign troops to enter their territories in time of peace, in order to aid their rebellious ſubjects againſt them, ſo they were at a ſtand how to deal with them. That the great council as well as all the reſt of the inhabitants, being too well acquainted with His Excellency's extraction, exquiſite knowledge in ſtate-affairs, and the good neighbourly correſpondency he had always cultivated with our government, than to harbour the leaſt thought that he ſhould give the leaſt encouragement to any of his ſubjects, to aid rebellious ſubjects againſt their ſovereigns: that they were ſenſible he would uſe all poſſible means to prevent it. It was for this reaſon that they were ſent by the great council to give His Excellency notice of the hoſtilities committed by Kamaron and Henry Dias, deſiring that he would be pleaſed not only to command them not to aſſiſt the rebels with their troops, but alſo to retire out of Pernambuko and the other captainſhips under the Dutch juriſdiction; that ſo the rebels being diſappointed of their aſſiſtance, might be ſooner reduced to their former obedience, and our ſubjects enjoy the benefit of the truces ſtipulated betwixt His preſent Majeſty of Portugal, Don John IV. and Their High and Mightineſſes the States-General. All which, the great council of Brazil highly recommended to His Excellency's conſideration, in a letter which was then delivered by the deputies to the governor, which is as follows:

A Letter from the Great Council to the Governor of the Bahia.

"It is ſufficiently known to Your Excellency with what ſtrictneſs the truce betwixt His Majeſty of Portugal and the High and Mighty the States-General of the United Provinces, has been obſerved in all its circumſtances by the inhabitants of the Dutch Brazil, even according to the conſtitution of thoſe of the Bahia and other places, who have of late paſſed through our captainſhips; neither have we ever received the leaſt complaints upon that account, either from the King your maſter, or from Your Excellency; all which gave us ſufficient reaſon to believe that you would not in the leaſt conſent that your ſubjects ſhould attempt any thing contrary to the ſaid truce. And though ſome of the Portugueſe inhabitants, ſubjects of the ſtates, laying aſide their allegiance, have taken up arms and are riſen in rebellion againſt this ſtate, as ſoon as Kamaron and Henry Dias at the head of their Brazilians and negroes, beſides ſome Portugueſe, did without licence or the leaſt encouragement from us, enter our territories, contrary to the law of nations, and joining with the rebels exerciſed open hoſtilities againſt our ſubjects, not like ſoldiers, but robbers and thieves; yet can we not be perſuaded that thoſe troops ſhould have made this attempt by order or conſent of His Majeſty of Portugal or Your Excellency, againſt us your confederates.

Thanks be to God, we do not want means to bring our revolted ſubjects to reaſon, and to deſtroy thoſe foreign troops; but to ſhew to all the world how ready we are to fulfil the reiterated command of our maſters, to maintain inviolably the truce betwixt His Majeſty and them; and to remove all ſiniſter interpretations which might be made in foreign courts upon this head, as alſo to give ſufficient opportunity to His Majeſty of Portugal and Your Excellency, to convince the world that you have neither conſented to nor abetted this conſpiracy; we in the name of Their High and Mightineſſes the States-General, His Highneſs the Prince of Orange, and the governors of the Weſt-India company, have ſent Mr. Balthaſar Van Voerden, counſellor of the court of juſtice, and Dirk Hoogſtraet, commander-in-chief on the Cape of St. Auſtin, as our deputies to you,

with full power to propoſe theſe points to you, and to deſire you forthwith to recall the ſaid Kamaron, Henry Dias, and other leaders, with their troops, within a limited time out of our territories, either by public proclamation, or ſuch other means as Your Excellency ſhall think moſt forcible or expedient, and to puniſh them according to their deſerts; and if they refuſe to obey, to declare them open enemies of His Majeſty; it being impoſſible for us to conceive, how due ſatisfaction can be given without it to Their High and Mightineſſes, to the Prince of Orange, and the Weſt-India company, which nevertheleſs we ought and do expect from Your Excellency.

" (Subſcribed) Your Excellency's well-meaning friends,

" (On the ſide ſtood) HENRY HAMEL,
A. VAN BULLESTRATEN,
P. J. BAS,
J. VAN WALBECK,
and
HENRY DE MUCHERON."

" From the Receif,
" July 7, 1640.

The governor gave immediate anſwer to the deputies propoſitions, that he was ſo far from ſending any ſuccours to the rebels, that he had not had the leaſt knowledge of it. That the Brazilians and negroes were diſbanded by His Majeſty's order, and that theſe as well as the Portugueſe among them, that were come to the aſſiſtance of the rebels, could be in no great numbers, conſiſting (as he ſuppoſed) in ſome vagabonds, or others, who having committed miſdemeanors in the Bahia, had taken this opportunity to ſhelter themſelves, and flee from puniſhment, as it frequently happened that ſuch-like perſons did come to the Bahia from Pernambuko, which nevertheleſs had given him not the leaſt ſuſpicion of the council's ſincerity. He told them that he was extremely glad to underſtand the good confidence their maſters repoſed in him, of maintaining the truce concluded betwixt His Majeſty of Portugal and Their High and Mightineſſes the States-General, aſſuring them that he never ſhould be prevailed upon to act contrary to it, for fear of hazarding his life. And that if he had any ſuch intention, he did not want means to attempt it by the aſſiſtance of the Brazilians. But that he had never had any thoughts that way, notwithſtanding he had been provoked to it by the Dutch, who ſince the truce had taken a Portugueſe ſhip and carried it to the Receif, which by the bravery of the Portugueſe was delivered from the Hollanders, and they and the ſhip brought to the Bahia; the Dutch mariners being diſmiſſed without any puniſhment. He told them further, that he was not inſenſible what an opinion their maſters entertained of his ſincerity; and that he had reaſon to believe, that they had at this time as they had done before, ſent their deputies chiefly to feel his pulſe, to inquire into his ſtrength, and to dive into his deſigns. That however, he would communicate the letter to his council, and give them a ſpeedy anſwer, in order to their return home, purſuant to the requeſt of their maſters. Then the governor ariſing from his ſeat, the deputies took their leave and returned aboard.

The 19th, in the morning, they were ſent for aſhore by a lieutenant, and brought to the houſe of Lieutenant-colonel Pedro Korea de Gama, where they dined in company of Andrew Vidal and Paulo de Kunha. Towards the evening they were again conducted to the palace, where the ſecretary deſired them to tarry a minute, becauſe His Excellency was buſy with cloſing his letters; after ſome ſtay, they were introduced to the governor, who told them, that he had underſtood the contents of the letter, which he found altogether agreeable to the propoſitions made to him the day before by way of mouth by them, which conſiſted chiefly in two points.

Firſt,

Firſt, the good opinion their maſters had of his ſincere intention, in maintaining a good correſpondency with them, in order to maintain the truce betwixt His Majeſty and the States-General, and the confidence they had of his not being concerned in the rebellion, either by encouraging or aſſiſting the ſame. Wherefore he deſired they would continue in the ſame ſentiments, becauſe he never had made the leaſt infraction of the ſaid truce, neither ever thought of any thing like it, nor ſuffered any of his ſubjects to act contrary to it; notwithſtanding, ſaid he, the Hollanders have broke the ſame in ſeveral reſpects, viz. in their expeditions againſt Angola, St. Thomas, and Marinho; by the plundering of Pedro Cæſar Mines, who had been baſely uſed during his impriſonment, not like a man of quality, being forced to ſhelter himſelf among the woods after his eſcape. They had alſo taken a Portugueſe ſhip in his own harbour. Neither did the inhabitants of Pernambuko want reaſons of complaint, as well as the other captainſhips; he had underſtood out of ſeveral letters from thence, how the Jews were always buſy in forging accuſations againſt them, which were taken for truth; and when the Portugueſe had thereupon abſconded themſelves out of fear, the Tapoyers, or mountaineers, were armed againſt them; among the reſt, they had cauſed a poor hermit to be hanged. The great council had always given him ſufficient proofs of their ſuſpicion, in the laſt embaſſy, being intended to no other purpoſe (as Captain Hoogſtraten could teſtify) than to dive into his deſigns and ſtrength. Thus it was reported and believed, that Andrew Vidal and Paulo Kunha, with ſeveral other officers, were ſent by him into Pernambuko, though they ſaw them here before their eyes.

Upon the ſecond point, concerning the troops ſaid to be ſent to Pernambuko, he gave for anſwer, that they muſt be ſome Brazilians and negroes lately diſbanded, who were of little account, as we were ſenſible ourſelves: that if a few Portugueſe were among them, they muſt be ſuppoſed to be criminals who were fled from juſtice; that he was not unwilling to call them back by proclamation, but feared that he ſhould be but ſlenderly obeyed, by a ſort of people who could not be kept in obedience within his own juriſdiction. That to ſatisfy our requeſt, and to remove all reaſons of complaint, he intended to ſend his deputies ſhortly to Pernambuko; all which he had more clearly expreſſed in his letter to the great council, wherewith he would, according to the requeſt of our maſters, diſpatch us with all imaginable ſpeed.

The deputies replied, that their maſters had never entertained any ſuſpicion of His Excellency, neither had they given any orders to dive into his deſigns; but always had a favourable opinion of his firm adherence to the truce, as might be evidenced by Mr. Andrew Vidal, who, during his ſtay with them, had liberty to go where he pleaſed, without any attendance but his own. That what he objected concerning the accuſations of the Jews was of no moment, the ſame being never hearkened to, the intended inſurrection being diſcovered by perſons of unqueſtionable credit. That John Fernandes Vieira, Antonio Kavalkanti, and others their adherents, had always been protected againſt any falſe accuſations, and had free acceſs to all the counſellors of the court of juſtice, and thoſe of other colonies, as well as the chiefeſt among the Dutch, ſo that they had no reaſon to abſcond out of fear for the Tapoyers, who never were intended to be employed againſt them. That they did not know of any hermit that was hanged by them, but remembered, that in an engagement with Amador d'Araouje, ſuch a one was ſhot by the Brazilians as he was ringing the bell to give the alarm.

They further told him, that though they had no orders to treat with His Excellency upon any other points than thoſe that concern the rebellion, they could eaſily make it out before all the world, that Angola, and the other places, were conquered according to the rules of war, without the leaſt infraction of the truce, it having been ex-

preſsly ſtipulated, that the war ſhould continue in thoſe parts till the ſame was publiſhed there. The Brazilians, negroes, and Portugueſe, were come in conſiderable numbers into our territories, not like diſbanded ſoldiers, but well armed, and their coming was not unexpected, but well-known to the rebels; but the council was not ſo much concerned for their number, as to be ſatisfied under whoſe authority they had taken up arms againſt them, that they might deal with them accordingly. But however it was, they deſired His Excellency to believe, that their maſters would be extremely glad to underſtand his good inclinations, that thereby the effuſion of human blood might be ſaved; intreating him to ſend his deputies forthwith with the neceſſary inſtructions.

The governor promiſed to ſend his deputies ſoon after their return to Pernambuko, telling them, that as he thought himſelf ſecure of the good neighbourly correſpondency of their maſters, ſo he was reſolved to continue in the ſame on his ſide. What he had propoſed for the reſt, had been only by way of diſcourſe, not with an intention to enter into a diſpute concerning the legality or illegality of it; though it appeared very odd to him, that they ſhould aſſiſt his maſter at home, and at the ſame time wage war with him in other parts, under pretence that the peace was not publiſhed there; and what had paſſed with Pedro Cæſar de Mines was a thing not juſtifiable in his underſtanding.

After the uſual compliments, he aroſe from his ſeat, telling them, that he would ſend the letter directed to the council to them aboard the next day, and ſo our deputies returned aboard their ſhip. The 20th, in the morning, the ſecretary of the governor came aboard our veſſel, with the governor's letter to the council, which he delivered to the deputies, requeſting in his maſter's name, to ſend him a tranſlation of the letter from the council to the governor out of the Dutch into the Portugueſe, ſubſcribed with their own hands; which they did, and having delivered the ſame to the ſecretary, he took his leave and returned aſhore.

Our people ſet ſail the ſame day about noon from the Bahia to Pernambuko, where they arrived the 28th in the afternoon before the Receif, and gave an account the ſame day of their negociation to the great council, unto whom they alſo delivered the letter written by Antonio Telles de Sylva, and directed to them. The contents of which are as follows:—

The Governor's Letter to the Council.

"Mr. Balthaſar Vander Voerden, counſellor of juſtice, and Captain Dirk Van Hoogſtraten, commander-in-chief on the Cape of St. Auſtin, Your Lordſhips' deputies, have delivered your letter to me, in which you are pleaſed to give me notice of the revolt of ſome of your ſubjects againſt you. I received this news as I ought to do, and ſhould not have been able to receive it without the greateſt ſurpriſe and diſcompoſure of mind, if I had not been aſſured in my conſcience, that Your Lordſhips did not in the leaſt imagine that this inſurrection could derive its ſource from our government; and, though I could upon this occaſion enter upon a long recital of the proceedings of my government, tending, from its beginning till now, to a ſufficient juſtification in the eyes of all the world, and of the greateſt kings and princes of Chriſtendom, that the ſaid good correſpondency has been maintained as ſtrictly on our ſide, as the ſame is promiſed in Your Lordſhips' letter: but rather than give the leaſt occaſion of diſguſt or difference, by enlarging myſelf upon thoſe heads, in which your ſubjects have expreſsly and manifeſtly violated the truce concluded and ratified betwixt the King my maſter, and the

the States-General of the United Provinces, I will ſacrifice the ſame to the intereſt of our common neighbourhood, rather than to enter upon a particular account of thoſe miſcarriages in the expedition of Angola, at a time when the States-General did aſſiſt the crown of Portugal with their naval force, when our ambaſſadors reſiding in the Receif were told, that theſe troops were not intended to be employed againſt any of His Majeſty's harbours, but in the Weſt Indies, though at the ſame time they were embarked for the conqueſt of Angola. The ſame may be ſaid of the taking of the iſle of St. Thomas, and the city of Luy de Mapanha, and the ſeizing of a Portugueſe ſhip upon our coaſt, loaden with ſugar from Spiritu Sancto. The commiſſary Greening was diſpatched hither, under a pretext of buying of farinha, but in effect to ſound my inclinations, as he himſelf confeſſes, when he ſays in a certain letter of his, "I was ſent thither with this commiſſion, but rather to feel his pulſe and try his friendſhip, than that we were in want." The unfaithful dealings of the directors of Angola in the capitulation with the governor Pedro Cæſar de Mines; the raſing of our fort Araval in Bengo; the baſe treatment put upon the ſaid governor, being a perſon of quality, and a general of His Majeſty's, are matters altogether inconſiſtent with the rules of war, nay, with humanity itſelf, and contrary to the practice not only of the more civilized nations of Europe, but alſo the barbarians themſelves. Of the ſame ſtamp was the anſwer given by your council to our ambaſſador, who urging a ceſſation of arms in the kingdom of Angola, was anſwered, that the ſame had no dependency on our juriſdiction, quite contrary to the ſincere intentions always obſerved by me in all our tranſactions with you; for no ſooner did Your Lordſhips make complaints to me againſt one Captain Auguſtino Condago and one Domingo de Rocha, who having carried away a barge with ſugar, had brought her into the harbour of our city, I ſent back the ſaid veſſel immediately, and put the captain in priſon till he was ſent over to His Majeſty. And that time being informed, that two ſoldiers living under my juriſdiction, whoſe names were John de Campos and Domingo Velho Sigiſmundo, had committed ſome inſolencies in your captainſhip of Pernambuko, I cauſed them to be hanged immediately, looking upon it as a duty not to be diſpenſed with by me, for the maintaining of our mutual good correſpondency; all theſe before-mentioned infractions having never been able to make me forgetful of the reiterated orders of His Majeſty, viz. to improve the effects of the peace and alliances made betwixt him and the States-General, to our both ſides ſatisfaction: I muſt at the ſame time confeſs, that looking upon myſelf as a ſoldier, (abſtracted from the conſideration of the intereſt of the ſtate, and the duty of a ſubject) I thought I ought not to take tamely ſo many affronts, and to let ſlip ſo many fair opportunities of doing myſelf juſtice; much beyond what can be ſuppoſed to ariſe from the conjunction of a few unarmed Portugueſe, a few diſcontented negroes, and ſome rebels, whoſe protection cannot, as I ſaid before, come in any competition with the ſeveral opportunities and provocations paſſed by on our ſide before, for the common intereſt; and that conſequently our government cannot as much as be conceived to be the hidden cauſe of this rebellion, as Your Lordſhips themſelves are pleaſed to confeſs; neither would I have entered upon a recital of thoſe particularities, if I had not thought myſelf obliged both in duty and affection, to give this ſatisfaction to you. To give you the true account of the abſence of Henry Dias, you muſt know, that one night he left his guard in Rio Real, and paſſed over to your ſide; Don Antonio Philippo Kamaron, captain of the Brazilians, being ſent after him, and not returning, I judged that they were gone towards Mocambo, to attack the Palmairas of Rio St. Franciſco, which made me (to avoid all ſuſpicion of being concerned in any thing that might tend to the

breach of peace) ſent two Jeſuits to perſuade them to return, but in vain, they refuſing to obey, either for fear of puniſhment, or that they were already engaged with the rebels (as I now am apt to believe they were), ſo that I have heard nothing from them ſince, except what I have underſtood out of Your Lordſhip's letter. The Portugueſe under your juriſdiction have ſent to me the reaſons which moved them to this inſurrection, imploring my aſſiſtance, as ſubjects of the King my maſter; they told me, that they ſtood in fear of being ſacrificed to the fury of four thouſand Tapoyers, ſent for that purpoſe from Rio Grande; to avoid which, and dreading Your Lordſhips' anger, awakened againſt them by the falſe accuſations of the Jews (the moſt perfidious and irreconcileable enemies of Chriſtendom), had rather choſen to expoſe themſelves to a miſerable flight, leaving behind them their wives and children, than to indure the hardſhips of a tedious impriſonment. I could ſcarce have imagined, that you could be ſo far miſled by the fictions of a people ſo much deſpiſed by all other nations, as to be perſuaded by them, that certain perſons were ſent from hence into your territories, who have been ſeen here by your deputies. And though I am apt to perſuade myſelf, that ſome of the Portugueſe would, as the caſe now ſtands, be glad to embrace our protection, it being much more natural to be oppreſſed by one's own King or Prince, than by foreigners: yet when I ſeriouſly reflect upon Your Lordſhips' propoſals made by your deputies, viz. to oblige Captain Kamaron and Henry Dias to return to the Bahia, and to uſe all other proper means to bring the revolted Portugueſe to reaſon; when, I ſay, I ſeriouſly reflect upon the public calamities on one ſide, and how deſtitute I am of ſuitable means at preſent to ſatisfy your deſires, I cannot but be infinitely concerned thereat; being ſenſible that theſe captains will not be brought over by perſuaſions; and wanting means to reduce them to obedience, who have now ſettled themſelves at ſo great a diſtance among the woods and foreſts. But as I am ready to conform myſelf in all reſpects to Your Lordſhips' deſires, to convince you of the ſincerity of the Portugueſe nation, which is ſuch, that no opportunity, though never ſo great, of promoting their own intereſt, does ever ſtand in competition with what they think they owe to their confederates: I am willing to take upon me the office of a mediator, in order to endeavour to appeaſe theſe troubles by my authority; for which end I intend to ſend to you with all poſſible ſpeed, certain perſons of known ability, with ſufficient inſtructions and power, to the rebellious to return to their duty; which, if they decline, ſuch meaſures may be taken as will force them to it; which, as I hope, may ſerve as the moſt effectual means to reſtore tranquillity to your dominions, and to cultivate the good opinion and correſpondency betwixt us; which I wiſh God Almighty will be pleaſed to continue betwixt theſe two nations, by a perpetual tie of amity.

"Bahia, July 19, 1645. (Signed) ANTONIO TELLES DE SYLVA."

Mr. Hoogſtraten at the ſame time gave a ſecret verbal account to the great council, that ſoon after their arrival there, Andrew Vidal, Captain Paulo Kunha, and John de Souſa came to them, the laſt of whom ſat himſelf down near him (Mr. Hoogſtraten), inquiring ſecretly after his uncle Philip Pays Baretto, whether he was among the mutineers; to whom he gave for anſwer, that he was ſtill in his mill. After which, the table-cloth being laid, Souſa was invited to ſtay at dinner with them, which he refuſed; becauſe, as he ſaid, he was upon the guard: before dinner was ended Souſa came back, and after the table-cloth was taken away, invited Mr. Hoogſtraten and Kunha to ſmoke a pipe with him in a back room, whither they went, but were followed by the ſecretary, Mr. Springapple. As they paſſed through a gallery, Paulo de Kunha took

took Springapple a little on one ſide; and in the meanwhile, Souſa told Hoogſtraten with a loud voice, that he was ſurpriſed to hear that his uncle Philip Pays had not ſided with the reſt: unto which Hoogſtraten anſwered, "That he thought he did very wiſely to keep himſelf quiet, becauſe it was likely to turn to no good account." "That is your opinion," replied Souſa, "but have a little patience; and becauſe I know you to have always been a friend to the Portugueſe, I can aſſure you it will turn to a conſiderable account. And it is upon this ſcore, I adviſe you, like a friend, to provide for your own ſafety and your family. You may reſt aſſured, that if you will engage to do a piece of good ſervice to the King my maſter, and to the governor, you ſhall want neither money, ſugar-mills, places, nor preferments." Mr. Hoogſtraten, appearing ſomewhat diſcompoſed at this diſcourſe, told him, "That though he was not unwilling to do the King and governor what ſervice he could, he did not know what ſort of ſervice he meant." Unto which Souſa replied, "I am ſure you are able to do good ſervice to the King." "But then," ſays Hoogſtraten, "you muſt tell me how. "That I will," anſwered Souſa; "are you not governor on the cape of St. Auſtin?" Unto which Mr. Hoogſtraten ſaid, "Yes, I am." "Then," replied Souſa, "all that is required of you, is, to ſurrender the ſaid fort, with all its works, into the King's hands, that we may land our men thereabouts: if you will promiſe to do it, you ſhall have a very ample reward, and be made commander-in-chief of our forces." Mr. Hoogſtraten gave for anſwer, "that theſe were things of ſuch a nature, as were not conſiſtent with his oath and honour." Their diſcourſe being interrupted at that time by the coming of another perſon into the gallery, John Souſa and Paulo Kunha went out another way. Mr. Hoogſtraten told his ſecretary, Mr. Springapple, with a diſcompoſed look, "What is the meaning of theſe dogs, do they take me for a traitor?" He was going on to ſay more, when Souſa and Kunha returning into the gallery, took him aſide, and told him, "That he might be ſure every thing ſhould be performed that had been promiſed him; that if he wanted any money, he ſhould have it immediately; and for the reſt, they would introduce him alone to the governor, to receive the confirmation of it from his own mouth." Mr. Hoogſtraten replied, "What you deſire is not in my power to perform, if I would never ſo fain; becauſe I am promiſed to have a commiſſion of major immediately after my return, and then I ſhall certainly be employed in another place." During this parley, Mr. Vander Voerde entered the gallery in company with Mr. Andrew Vidal, who entertained him all the while the others were talking together, till Hoogſtraten, taking his opportunity as they were walking together, whiſpered Mr. Vander Voerde in the ear, "I wiſh I was well rid of them, to talk a little with you in private, for I know not what their deſign is; I am afraid they will either kill or detain me here." Mr. Vander Voerde would willingly have made a reply, but could not, by reaſon Souſa and Kunha, and Pedro Korea de Gama (the laſt of which underſtood Dutch), were ſo near them; ſo that he thought it the ſafeſt way to diſſemble, and to pretend as if they had been talking about ſome indifferent matter. Mr. Hoogſtraten then told Souſa, that he had a great mind to pay a viſit to Donna Catherine de Melo, mother-in-law of Philip Pays Souſa; he anſwered him, that he would aſk the governor, who having given his conſent, Hoogſtraten went thitherward with Souſa, and at his going out of the gallery, whiſpered Vander Voerde again in the ear, "They have catched a mackerel, for I intend to act the hypocrite to the life." As they were walking along the ſtreet to Madam de Melo's houſe, Souſa and Kunha repeated their former diſcourſe, endeavouring to encourage Mr. Hoogſtraten, by hopes and promiſes of great reward, both from the King and governor, with

whom they ſaid he ſhould confer in private concerning the point in hand, and that in the following manner.

After their return from Madam de Melo's, to the houſe of Pedro Korea de Gama, where Vander Voerde expected their coming, Kunha was to go privately to the governor, to agree with him, that when Mr. Vander Voerde, Hoogſtraten, Souſa, and Kunha, ſhould come to ſpeak with him, he ſhould by his ſecretary deſire them to ſtay a little while. In the meanwhile, Souſa was to aſk Mr. Hoogſtraten to take a glaſs of wine with him, and under that pretence bring him to the chamber of the confeſſor of the governor, where they were to have this private interview. Accordingly, Paulo de Kunha went to the governor, whilſt Hoogſtraten and Souſa were returning to Piedro Corre de Gama's houſe; when Souſa entertained him with nothing elſe, but the probability of ſucceeding in their enterpriſe againſt the Dutch Brazil, telling him, that the governor ſtayed only for the coming of Salvador Korrea de Saa and Benevides, who were expected with galions from Rio Janeiro, beſides ſome other ſhips; and that twenty-five hundred men were deſigned for this expedition, beſides thoſe already in arms in Pernambuko, who were to be ſent from the Bahia, and to be landed on the Cape of St. Auſtin; "this is," ſaid Souſa, "the governor's requeſt to you."

Scarce were they returned to the houſe of Piedro Korrea de Gama, when Andrew Vidal came and told them, that the governor was ready to receive them; ſo they went to the palace, where they were no ſooner come within the anti-chamber, but the governor's ſecretary came to deſire them to tarry a little, the governor being buſy with cloſing ſome letters. So, whilſt ſome Portugueſe were entertaining Mr. Vander Voerde near the window, ſays Souſa to Mr. Hoogſtraten, "Come, ſhall you and I take a glaſs of wine in the meanwhile?" Which Mr. Springapple, the ſecretary of the embaſſy, underſtanding, told him, that he would go along with them; but Paulo de Kunha, and ſome other Portugueſe, taking him aſide, kept him in diſcourſe, whilſt Mr. Hoogſtraten was conducted by Souſa into the confeſſor's chamber.

Within a few minutes after, the governor, Antonio Telles de Sylva, entering the room, ſaluted Mr. Hoogſtraten very courteouſly, and ſetting himſelf in a chair near him, ordered the chamber to be locked, nobody being preſent beſides themſelves, but Souſa. The governor then told Mr. Hoogſtraten, that he had always taken a particular notice of his character, of his being a friend to the Portugueſe, that he hoped he would continue in the ſame opinion, and would not refuſe the offer made him by Don John de Souſa, in the King's and his name; their intention being not to enter into a war with the Dutch, but only to repoſſeſs themſelves of what of right belonged to the preſent King of Portugal, Don John IV. and that if Count Maurice of Naſſau had ſtayed any longer in this country, he himſelf would have been inſtrumental in bringing this matter about. Mr. Hoogſtraten anſwered the governor, that he ſhould be glad to underſtand what it was he could ſerve him in. "You have," ſays he, "underſtood that from Mr. Souſa, and I deſire you to turn abſolute Portugueſe." Mr. Hoogſtraten told him it was beyond his power, becauſe immediately after his return, he ſhould be provided with a major's commiſſion, and conſequently not be employed in the ſame place: unto which the governor replied, "You need not queſtion any place of honour or profit among us, but it will perhaps not be convenient to diſcourſe together upon this point at preſent, for fear Mr. Vander Voerde ſhould ſuſpect us: but I intend to ſend two ambaſſadors (of which Mr. Paulo de Kunha is to be one) to your government, who ſhall be empowered to treat with you further upon this account. And," ſays he, giving his hand to Mr. Hoogſtraten, "reſt aſſured, in the name of the King

my maſter, that whatever Mr. Paulo de Kunha ſhall promiſe you, will be punctually obſerved and performed."

Then the governor took his leave, telling him that he would not detain him any longer, for fear of creating a ſuſpicion in his colleague, and ſo retired into his own apartment. But Mr. Hoogſtraten and John de Souſa were no ſooner returned from thence, but the governor ſent for the ſaid Mr. Hoogſtraten and his colleague Mr. Vander Voerde, to confer with them, concerning their propoſals, made in the name of the council of the Dutch Brazil: as they were walking thither, Mr. John de Souſa told again to Mr. Hoogſtraten, with a low voice, "And why are you obliged to accept of the major's commiſſion? It is an eaſy matter for you to tell them, that you would rather continue governor of the place where you now are; and be ſatisfied, that when you come among us, that you will not want any employment fit for a good ſoldier as you are." Mr. Hoogſtraten being not a little moved with this diſcourſe, was more deſirous to get aboard their veſſel, as ſoon as poſſible he might, to get an opportunity of communicating the whole matter to Mr. Vander Voerde; which he did accordingly, as ſoon as they were entered the cabin, the door of which he ordered to be locked immediately.

In the meanwhile, viz. the 5th of July, it was debated in the council of the Dutch Brazil, whether, for the ſecurity of the country, they ſhould not want the aſſiſtance of the Tapoyers, under their King, John Duwy, dwelling in Rio Grande; who for that purpoſe had gathered a good body near Kunhau, eſpecially ſince the Portugueſe committed all manner of barbarities againſt the Dutch, and had ſummoned the barbarians called Rondelas, from the Bahia.

But conſidering the devaſtations which muſt needs enſue upon the march of thoſe barbarous people in the flat country, it was thought convenient not to come to any certain reſolution upon this point, until they had adviſed with Lieutenant-colonel Haus, to whom a letter was diſpatched immediately upon that account.

On the 7th of July, the ſaid Mr. Haus ſent word to the council, that he intended to march the ſame day from Moribeca, and after being joined with Captain John Blaar, to attack the enemy at St. Lawrence; but by another letter of the 16th, written by Captain Blaar, they were informed that the rebels continued very ſtrong at St. Lawrence, expecting a certain reinforcement from the Matta, where they had forced the people to take up arms for them; deſiring a ſuccour of fifty men, to drive them from thence. Hereupon the council diſpatched meſſengers both to Blaar and Haus, ordering them to join their troops, and to rout the rebels near St. Lawrence, on which in a great meaſure depended the preſervation of the Dutch Brazil.

The 7th of the ſame month the council received alſo a letter from Lieutenant Flemming, dated at Pojuka, in which he advertiſed them, that he had received certain intelligence, that Kamaron was marching againſt him, and that two companies were already come to the ſugar-mill of Pikdora. Hereupon orders were ſent him, that if he found himſelf not in a condition to keep the monaſtery for want of proviſions, he ſhould, at the approach of Karamon's troops, retire to St. Antonio, the better to make head againſt the enemy. The ſame day Enſign Hartſtein marched with a detachment of ninety ſoldiers and thirty Brazilians, of the garriſon of the Receif and Itamarika, to Ajama and Jegoaribi, in queſt of the rebels, but meeting with none, returned about noon, and the ſame evening directed his march towards Haus.

The 8th of July, the council having received advice from Haus that they intended the ſame day to march from the ſugar-mill of St. John Fernando Vieira to attack the rebels of St. Lawrence, if they would abide his coming, it was reſolved to ſend as

many forces as poſſibly they could ſpare to his relief, conſidering that the preſervation of the whole Dutch Brazil depended on the ſucceſs of this expedition; and accordingly two companies of foot, of Mucheron and Blaar, were ordered to march thither, not queſtioning but that before their arrival Haus would be joined by Captain John Blaar; and in effect the next following day they received advice from Mr. Haus, that he was ready to join with the ſaid Blaar.

The 10th of July the council gave an account, by letters to Haus, what intelligence they had received concerning the poſture of affairs in St. Antonio and Pojuka, with orders to ſend as many firelocks and Brazilians as he could poſſibly ſpare to their relief, to keep the paſſage from St. Antonio to Pojuka and Serinham open; without which, all communication betwixt them and the Receif would be cut off by the enemy. Two letters of John Fernandes Vieira and Antonio Kavalkanti were the ſame day read in council, in which they complained of the ſeverity of the two laſt proclamations, but were not thought fit to be anſwered; eſpecially ſince Amador d'Araouje had about the ſame time retired from the paſs of Pinderama.

Two days before, viz. that the council had received letters from Mr. Hoek, dated the 25th of June, at Rio Grande, intimating that hitherto there had not happened any commotions in thoſe parts; that, however, he had diſarmed the Portugueſe, and that the Tapoyers appeared to be well inclined to the government. Orders were ſent him to cultivate a good underſtanding with the Tapoyers, for which purpoſe they ſent ſome preſents to John Duwy, their King, and that the council approved his diſarming the Portugueſe. On the ſame day Father Imanuel, Lewis Bras, Imanuel Ferdinand de Sa, Kaſpar de Mendoza, Furtado, and Jeronymo de Rocha, all Portugueſe inhabitants of the Dutch Brazil, delivered their petition to the council, requeſting that the time of ſix days, appointed by the laſt proclamation for the wives and children of the revolted Portugueſe to leave the country, being expired, they might be allowed to ſtay in their habitations at leaſt till the ways, which at that time were rendered unpaſſable by the overflowing of the rivers, were ſomewhat mended. But conſidering that the Portugueſe rebels forced the inhabitants by threats and other unuſual methods to take up arms againſt the government, their requeſt was not granted.

The 13th of July, the council were advertiſed by letters from Haus, dated the 12th, that he had paſſed the river Kapivaribi, and marching through the Matta to the ſugar-mills of Arnao d'Ollanda, had met with four hundred rebels, who at the approach of his troops were fled to Moribeca, with the loſs of ſome of their men, from whence they might, without any oppoſition, march to the Matta of Brazil, and that he was ready to march directly to St. Lawrence, where he would expect the further orders of the council. They immediately diſpatched their orders to him to purſue and rout the flying rebels with all poſſible ſpeed before they could make head again, which done, he ſhould fix his head-quarters in ſuch a place where he was ſure he might be ſupplied with proviſions out of the adjacent country; their magazines being ſo exhauſted, as not to be in a condition to ſupply his troops. Haus had already in ſome meaſure taken effectual care of this point, having in the meanwhile ſent a reinforcement of one hundred foot, and a company of Brazilians, under the command of Captain Tallo, to Mr. Ley, governor of Moribeca and St. Antonio. The council alſo ordered the governor of the Cape of St. Auguſtin to ſtrengthen the fort with palliſadoes; and at the ſame time received advice from Mr. Ley from St. Antonio, that the rebels under Amador d'Araouje and Pedro Marinha Falkao, had poſted themſelves within ſight of them, in the new ſugar-mill, but as ſoon as he received the expected ſuccours, he did not queſtion to chaſe them

from thence, Amador d'Araouje having in vain attempted to force thoſe of Pojuka, to take up arms againſt the government.

He received alſo intelligence from Mr. Carpentier out of Goyana, that things remained in quiet there as yet: but whilſt Haus was buſy in making head againſt the rebels in the Vergea, Petro Marinho Falkao having declared himſelf head of the rebels of Pojuka, had gathered a body ſufficient to block up the garriſon of St. Antonio, who had no other ſupplies of proviſion, but what they received from the circumjacent country; ſo that the council being ſenſible of the danger, ſent immediate orders to Haus, to haſten to the relief of that place; who, accordingly directed his march the ſame night to the ſugar-mill of Lewis Bras, leaving Captain Wiltſchut with a company of ſoldiers, and all the ſick, behind at St. Lawrence.

The council received alſo advice by letters from Paul de Linge, dated the 12th of July at Parayba, that things were as yet quiet thereabouts, but that with much ado he had hitherto kept the Brazilians, inhabiting the villages, from plundering the Portugueſe inhabitants, who were extremely diſſatisfied, becauſe ſome of the Brazilians and Tapoyers, that had done them conſiderable miſchief, were diſcharged out of cuſtody. They ordered him to take all poſſible care to keep both the Brazilians and Dutch inhabitants, who were both for plundering the Portugueſe, from doing any miſchief to them; for which reaſon the council ſent the following proclamation to be publiſhed there:

A Proclamation.

"We the members of the great council, having received frequent complaints, that many of the faithful inhabitants of the country, who lately have taken a new oath of allegiance to the government, are plundered and robbed by the ſoldiers and volunteers; and being reſolved to maintain them in the poſſeſſion of their eſtates and goods, have for that reaſon granted them ſafeguards, and taken them into our peculiar protection; do hereby forbid all our officers and ſoldiers, as well as the other inhabitants under our juriſdiction, to attempt to plunder any of the inhabitants, provided with ſuch ſafeguards, or to indamage them any otherwiſe, either in their goods or perſons, upon pain of corporal puniſhment."

The 15th of July in the evening, the council was advertiſed by Mr. Ley, that the rebels had killed ſome ſoldiers of the garriſon of St. Antonio, that were ſent abroad to fetch ſome cattle from the ſugar-mill Gurapou, and had ſo cloſely blocked up the place, that no proviſion could be brought thither; and as they were not provided with neceſſaries for above a few days longer, they were in the utmoſt danger of being loſt. Lieutenant-colonel Haus being expected the ſame evening with his troops at St. Lawrence, orders were diſpatched thither for him go to either in perſon, or at leaſt to ſend as many able ſoldiers as he could bring together, under the command of Captain John Blaar, to the relief of St. Antonio, the council being of opinion, that the ſafety of the Cape of St. Auſtin, and of all the ſouthern provinces, depended on the preſervation of this place; for which reaſon, they alſo ordered Captain Falho, who was expected about the ſame time with a company of ſoldiers, and as many Brazilians at Moribeca, to march directly to St. Antonio, and to ſtay there till further orders; of all which they ſent advice to Mr. Ley, and Mr. Heck. Haus having, purſuant to theſe orders, directed his march to St. Antonio (notwithſtanding the wearineſs of his ſoldiers, tired by a tedious march), Pedro Marinho Falkao had no ſooner notice of his approach, but he raiſed the blockade of St. Antonio, and with his body of rebels gathered

gathered out of the three diſtricts of St. Antonio, Pojuca, and Moribeca, to the number of ſix hundred, joined with the rebels in the Vergea of Moribeca.

The 17th of July, the council were advertiſed by Haus in a letter dated at Moribeca, that having received a meſſage from Mr. Ley and Mr. Heck out of St. Antonio, with advice, that in Puerto de Gallinas two boats with ammunition were landed by Pedro de Kunha, he had ſent thither Captain John Blaar, and Enſign Hartſtein, with a good body of his ableſt ſoldiers and Brazilians, he himſelf not being in a condition to follow with the reſt, diſabled by their late marches; for which reaſon he had put them into quarters of refreſhment in Moribeca, where he would expect their further orders, as not judging his preſence neceſſary at the Receif, now the enemies were fled before him.

Orders were thereupon diſpatched to him by the council the 19th of July, to keep his head-quarters in Moribeca, the better to keep a watchful eye over the rebels that were retired into the woods; and to be the nearer at hand to ſuccour either St. Antonio or Pojuka, for which Moribeca lay very convenient; but if the enemy ſhould become too ſtrong for him, he ſhould retreat towards the Receif. Advice alſo was ſent him that Amador d'Araouje, Pedro Marinho Falkao, John Pais, and Kabral, were, with the rebels they had gathered in St. Antontio and Pojuka, marched the day before in the morning from D'Ingenio Moreno Gardo, to join their troops with thoſe of John Fernandes Vieira.

The council likewiſe received ſeveral letters from John Hoek, Rudolph Baro, and James Rabbi, dated the 5th, 6th, and 7th of July, concerning the preſent ſtate of affairs in Rio Grande, and that they being threatened with an invaſion by Kamaron on the ſouth-ſide, and by the Brazilians of Siara and Maranhaon from the north, they had diſarmed all the Portugueſe and laid up their arms in the forts of Keulen. They had alſo, by the advice of King John Duwy, taken into cuſtody a certain Portugueſe called Antonio Vetallo, with his ſon, being accuſed by the ſaid King Duwy of having had a hand in the murther committed upon the Dutch in Siara, and in the conſpiracy of the rebels. They further complained of the ill practices of the Portugueſe, who ſought by all means poſſible to oppreſs the Dutch thereabouts; adding withal, that King Duwy was ready with his Tapoyers to fall upon the Portugueſe, as ſoon as he received orders for that purpoſe, which had made many of the Portugueſe fly out of Parayba.

About the ſame time, near one thouſand Brazilians, viz. three hundred and ſixty nine men, the reſt women and children, being fled for ſhelter into the iſle of Itamarika, where they were maintained out of the magazines, it was reſolved the 21ſt of July by the council, to ſend thither Mr. Liſtry, to take effectual care to eaſe the company of that burthen, that they might be engaged to provide themſelves out of their reſpective Aldeas. Things were as yet quiet about that time in Itamarika, Goyana and Parayba, by the good conduct of Mr. Paul Vander Linge, governor of the laſt. For as ſoon as the fire of rebellion began to break out in the Vergea, Pojuka, and in Olinda, the council being advertiſed that they ought to keep a watchful eye over thoſe of Parayba, where ſeveral were ſuſpected of being conſcious of the deſign, they ſent the 13th of July Paul de Linge, one of the aſſeſſors in the court of juſtice thither, with an ample commiſſion, to endeavour to keep the inhabitants in obedience, and to act for that purpoſe, as he ſhould find it moſt conducive to the public ſecurity. He was no ſooner arrived there, but he made it his chief care to provide the forts with ſufficient garriſons, ammunition, and proviſions, which he took from the ſhips then lying in the road, behind the Red Land: he further took care to ſecure all the ſuſpected perſons,

and

and ſummoned the reſt to take a new oath of allegiance to the government, which they did accordingly.

The council uſed the ſame precaution in the diſtrict of Pojuka, in the Vergea, Garaſſu, and Goyana, where they obliged ſuch of the inhabitants as had not left their dwelling-places to take a new oath of obedience. But the late ſuccours ſent thither from the Bahia fruſtrated all theſe endeavours.

On the 24th of July, Mr. Ley came with credentials from St. Antonio to the council, unto whom he made the following propoſitions.

I. That whereas ſeveral young and able men, living near St. Antonio, had not liſted themſelves purſuant to the proclamation iſſued for that purpoſe, they deſired orders might be ſent for all thoſe living in the juriſdiction of Maurice's Town and St. Antonio in the open country, to be obliged to take up arms for the defence of the country.

II. To oblige all ſuch young men as were not able to ſerve as volunteers, at their own charge, to liſt themſelves for ſoldiers, and to inſtruct them in martial diſcipline.

III. That perhaps it might not be unadviſeable to draw the garriſon out of Porto Calvo, to appear the more formidable in the field.

IV. To divide our land-forces into two bodies, the better to maintain themſelves in the open country; whereas now, upon the leaſt motion of the enemy, our whole force was obliged to follow them; and that the garriſon of St. Antonio ſhould be reinforced with ſuch a number, as to be able to ſend abroad a good party, for the conveniency of fetching the neceſſary proviſions out of the country.

After mature deliberation, the council was of opinion as to the

1ſt. That the young inhabitants of St. Antonio, Pojuka, and Moribeca, ought not to be forced to ſerve in the fort St. Antonio.

2d. That they would empower Mr. Ley and Heck to take as many of the young men as voluntarily offered themſelves into the ſervice for four months, at nine gilders per month, and one month's advance-money.

3d. They were abſolutely againſt the leaving of the fort Porto Calvo, but that it ought to be defended to the utmoſt.

4th. What concerned the dividing of their land-forces in two bodies, they would adviſe with Colonel Haus, but they approved of the propoſed reinforcement of the garriſon of St. Antonio, for reaſons by them alledged.

Lieutenant Hans Vogel, by his letters dated the 18th and 27th of July, at Seregippo del Rey, adviſed the council, that he had ſent a detachment towards Kamaron, who could not get ſight either of any Portugueſe or Brazilians, but that they had taken a ſingle Portugueſe, who was charged with letters to be carried to Rio St. Franciſco. He told them that Kamaron with ſome troops was marched through Rio St. Franciſco into the captainſhip of Seregippo del Rey; and that three or four ſmall veſſels or caravans, with ſome troops under the command of Andrew Vidal, were ſailed from the Bahia to Maranhaon and Siara. He likewiſe ſent the letters found upon the ſaid Portugueſe to the council, by which it appeared that the firſt foundation of this revolt had been laid among thoſe of the Bahia, or, at leaſt, that they had been made privy to it, and that they had provided theſe ſuccours; for, among others, there was a letter from the biſhop of that place, to a certain friar of the Receif, in which he told him, that he hoped to be with him before long; whereupon the fiſcal was ordered to examine the matter, in order to find out the bottom of this correſpondency betwixt theſe two clergymen.

In

In the meanwhile the Tapoyers of Rio Grande, (according to Mr. Linge's letter of the 19th of July,) had murdered thirty-five Portugueſe in the ſugar-mills of Kunha, who being of the number of thoſe that had ſurrendered their arms, purſuant to the proclamation, this cauſed no ſmall terror among the reſt of the Portugueſe thereabouts, and eſpecially in Parayba, where they left their habitations; ſo that, it being to be feared they would aſſociate with the rebels, under pretence of ſelf-defence, Mr. Linge deſired a reinforcement of ſoldiers to keep the Tapoyers in awe. The council therefore commanded Mr. Aſtellen and Captain William Lambert, with his company of foot, beſides twenty fuzileers, and a detachment of fifty men out of the garriſons of Parayba and Rio Grande, to take care of the Tapoyers, and to conduct them to the Receif; Jacob Rabbi their commander was ordered to march along with them, and Rudolph Baro appointed to provide them quarters upon the road.

Haus having by this time ſufficiently refreſhed his troops, writ a letter, dated the firſt of Auguſt, to the council, in which he deſired their orders to go in queſt of the rebels, and to attack them before they could be reinforced with their expected ſuccours; which being granted him, he attacked them in D'Ingenio of Balthazar Moreno, with ſuch ſucceſs, that he beat them from place to place, till on the 3d of Auguſt they retired to their intrenchment upon a high ſteep hill, acceſſible only in one place. Notwithſtanding which, he, relying upon the bravery of his ſoldiers, and hoping thereby to put an end to the war, attacked them vigorouſly in this advantageous poſt; but the rebels being ſuperior to him both in number and in the ſtrength of their camp, his forces were repulſed with the loſs of one hundred men (ſome ſay five hundred), among whom was Captain Lor. After this defeat, Haus, being ſenſible that the enemy expected daily a freſh reinforcement from the Bahia, retired to the Receif, where he knew his troops were abſolutely neceſſary for the defence of the place.

On the firſt of Auguſt, Gonſalvo Kabral de Kaldos was by the court of juſtice condemned to death, having, at the inſtigation of John Fernandes Vieira, undertaken to head the rebels in the captainſhip of Goyana. The ſame fate attended one Thomas Pais, an inhabitant of Tienpio, who had endeavoured to raiſe ſome troops for the ſaid John Fernandes Vieira. The ſame day the great council received advice out of Serinham, (the letters being ſent privately in the night-time in a ſmall boat down the river to the ſea-ſide,) that the rebels began to be very numerous thereabouts, that they were maſters of the river, had ſtaved all the boats, and plundered D'Ingenio Formoſa, where they carried away the negroes, and killed the beaſts belonging to the Dutch, but ſpared thoſe of the Portugueſe. The council being ſenſible that nothing but force would be able to reduce theſe rebels to their duty, and that they were from time to time reinforced from the Bahia, whereas the Dutch troops diminiſhed daily, they reſolved the firſt of Auguſt to ſend Mr. Balthaſar Vander Voerde, counſellor of juſtice, to Holland, to repreſent to the council of Nineteen there the true ſtate of the affairs of the Dutch Brazil, and to ſolicit prompt ſuccours. Accordingly the ſaid Mr. Vander Voerde having taken his leave of the council, ſet ſail the next day with the reſt of the ſhips that lay ready to ſail for Holland, being inſtructed with ſufficient power and credentials from the council, as follows:

Mr. Vander Voerden ſent with a Credential into Holland.

"Moſt noble, honourable, and moſt prudent Lords,

"Notwithſtanding the rebels make not the leaſt uſe of the royal authority, but cover their revolt with the cloak of godly liberty, we were always of opinion that this rebellion

lion of our Portugueſe inhabitants has not only been undertaken with the conſent of the King of Portugal, or at leaſt of his governor of the Bahia, but alſo encouraged and fomented by his authority and conduct: for how can it be ſuppoſed that Kamaron, Henry Dias, and the other ring-leaders, ſhould have dared to attempt to attack us by force of arms without his approbation? It was likewiſe our conſtant opinion, conſidering the preſent unſettled ſtate of Portugal, and the alliance betwixt that King and the ſtates of Holland againſt Spain, that he would be ſure never to acknowledge the tranſactions of the heads of the rebellion, and the ſuccours ſent them, to have been done by his authority, leſt the breach of faith and all its ill conſequences might be one time or other laid at his door, till he thought himſelf ſure in the entire conqueſt of the Dutch Brazil. Our gueſs has ſince proved more than too true; for Antonio Telles de la Sylva, governor of the Bahia, (as is evident from his anſwer to our letters here incloſed) denies to have had the leaſt knowledge, much leſs any hand, in the contrivance or conduct of this conſpiracy; laying the blame of this inſurrection upon their ring-leaders, who refuſed to obey his orders, and offering to ſend certain commiſſioners to appeaſe the fury of the rebels; and in caſe they ſhould refuſe to comply, to force them by the King's authority to lay down their arms. But how little agreeable this offer of putting an end to this rebellion, is to his real intention, is apparent out of the report made by Mr. Vander Voerde and Captain Dieterick Hoogſtraten, under-written by their own hands; in which you will find theſe expreſs words of the governor: 'That the Brazilians and negroes were diſbanded by His Majeſty of Portugal's particular order.' The abſtracts of the ſeveral incloſed letters ſent from the Bahia, and taken from the meſſenger by our forces in Seregippo, will put it beyond all doubt, that ſeveral inhabitants of the Bahia, and among them the biſhop himſelf, had already in May laſt ſome knowledge of the intentions of John Fernandes Vieira, and his accomplices; add to this, the depoſitions of Captain Dieterick Hoogſtraten, ſubſcribed by himſelf, concerning the propoſitions made to him in private, whilſt he was managing the company's buſineſs there, in the quality of one of our deputies; which as it directly contradicts the governor's anſwer to us, ſo it unravels the whole ſecret of his real intentions. And foraſmuch as all theſe things are ſufficient forewarnings to us, that the rebels will be conſtantly ſupplied from the Bahia, whereas we on the contrary muſt expect to be weakened more and more in every reſpect, we judged it abſolutely neceſſary and requiſite for the ſervice of our ſtate, to ſend to you the members of the council of Nineteen, Mr. Balthaſar Vander Voerde, counſellor in our court of juſtice, to give you a verbal account of the deplorable ſtate of our affairs here in a more ample manner than the ſame may be expreſſed in writing, not queſtioning, but Your Lordſhips will thereby be encouraged to ſend us a ſpeedy and ſufficient ſuccour, to re-eſtabliſh our affairs here, and to deliver your faithful ſubjects from the imminent danger that threatens no leſs than the ruin and loſs of their lives and eſtates, and deſiring you to give a favourable reception to the ſaid Mr. Balthaſar Vander Voerde.

"Receif, the 2d of Aug. 1645."

Immediately after the departure of the two before-mentioned envoys, Mr. Vander Voerde, and Captain Hoogſtraten out of the Bahia, being the 20th of July, the governor, Antonio Telles de Sylva, ordered all the ſea and land men that could be got together in haſte, to be embarked in twelve ſhips ready fitted out for that purpoſe, with neceſſary ammunition, arms, and proviſion, for the intended invaſion. Hieronymo Serrao de Payva had the ſupreme command over the fleet, as the Colonels Martin Soares Moreno and Andrew Vidal de Nigreiros had over the land-forces, both officers in the

ſervice of the King of Portugal. The orders given to the admiral by the governor, dated the 20th of July, contained in ſubſtance, that the great council of the Dutch Brazil having notified to him the inſurrection of the Portugueſe inhabitants of Pernambuko, he had judged it expedient to equip his fleet, in order to put a ſpeedy ſtop to thoſe diſorders, becauſe he was willing to comply with the ſaid council's requeſt, in reſpect of the ſincere friendſhip and correſpondency betwixt the crown of Portugal and them, which he had ſtrict orders from His Majeſty to obſerve; whereas it is evident, that the great council of the Dutch Brazil. in their letter to Salvador Korrea de Saa Benavides, of the 13th of Auguſt, expreſsly declare, never to have deſired any aſſiſtance from the governor of the Bahia, againſt the rebellious Portugueſe inhabitants.

The farther inſtructions given to the ſaid Admiral Payva were, that he ſhould directly ſteer his courſe from the Bahia to Pernambuko, keeping about twenty or thirty leagues diſtance at ſea, from the ſhore; that coming to the tenth degree he ſhould approach to the ſhore, and if he found the wind to blow hard from the ſouth, before he came to the before-mentioned height, he ſhould be very careful not to paſs beyond the land's point in the night-time. After having taken a view of the country, he ſhould, with the advice of his beſt pilots, endeavour to land his men in the moſt ſecure place he could meet with thereabouts, either at Una, Legamar, or Tamandare; being three leagues to the ſouth of the iſle of Alexo. But if they could not make any of theſe harbours, they ſhould enter at Porto Doſſer, Nambous, or Lagamar of Marakaipe, lying two leagues to the north of Alexo. But if, notwithſtanding all their endeavours, they alſo ſhould miſs their aim in thoſe places, to make themſelves maſters of Porto de Gallinhas, and to land their men betwixt that place and Barra Grande. After they had landed their men, with the neceſſary ammunition and proviſions, he ſhould ſet ſail to the bay of Pernambuko, in order to deliver with his own hands the governor's letter to the lords of the great council.

Accordingly the ſaid fleet ſet ſail towards the latter end of July from the Bahia, and in a few days after arrived in the bay of Tamandare, betwixt the rivers Olna and Formoſa, about four or five leagues beyond Alevo and Serinham. They were no ſooner come to an anchor there, but the Colonels Martin Soares Moreno and Andrew Vigal de Nigreiros landed the 28th of July one thouſand eight hundred or two thouſand landmen, among whom were many reformed officers well appointed, and great ſtore of arms, ammunition, and other neceſſaries.

The 1ſt of Auguſt, towards evening, three ſhips with five ſmall veſſels appeared in ſight of the Receif, ſteering their courſe to the north, whereupon the council diſpatched their immediate orders to the two ſhips, the Zoutlandia and the Zealandia, to make all the ſail they could after them, to obſerve what courſe they ſteered, and to prevent their landing of men. About the ſame time an advice-boat arrived from Admiral Lichthart, with letters to the council, intimating, that he had ſeen the ſaid ſhips, and that he ſuppoſed their intent to be, to land ſome men on the ſouth of the cape of St. Auſtin, for which reaſon he deſired them to ſend him ſome ſhips, and grant him leave to take as many of the garriſon of St. Antonio as he ſhould judge neceſſary to attack the enemy; of all which immediate notice was given to the northern parts, to be upon their guard againſt any ſudden ſurpriſe.

But the next following day thoſe ſhips being got out of ſight, ſeveral maſters of ſmall veſſels, that had been near them at ſea, reported, that they were heavily freighted ſhips, which by the ſtrong north winds were forced near the ſhore, ſo that it was concluded that they had ſteered their courſe towards Portugal.

Immediately

Immediately after, Admiral Payva'ſet ſail from the bay of Tamandare, and meeting with the fleet under the command of Admiral Salvador Korrea de Saa Benavides, which was latterly ſailed out of the port of Rio Janeiro, he returned with him into the ſaid harbour, and on St. Lawrence's day with their joint forces ſailed from thence towards the bay of Pernambuko.

The firſt news the council received of it was on the 11th of Auguſt, by a maſter of a ſmall veſſel, called John Hoen, bound for Seregippo del Rey, and by commiſſary John Barentz, with advice that they had ſeen a fleet of twenty-eight or thirty ſhips off Una, or Rio Formoſa, and that three of them had purſued them, and diſcharged ſome of their guns upon them. Much about the ſame time they received letters from Major Hoogſtraten, from the cape of St. Auſtin, and the fort Vander Duſſen, intimating that Andrew Vidal, Henry Dias, and Paul de Kunha were landed at Una, and marching to Serinham, had made themſelves maſters of the place, where they had given quarter to the Dutch, but cut to pieces all the Brazilians. The council hereupon took immediate care to ſend ſome ammunition and proviſions to the ſaid cape, having already, for the better ſecurity of that place, ordered Mr. Ley and Mr. Hoek, two days before, to leave the fort of St. Antonio, and to retire with the garriſon to the cape of St. Auſtin, before they were encloſed by the enemy. That two ſhips, the Deventer and the Elias, which were in the harbour unlading their goods and proviſions brought along with them for the ſervice of the company, were ordered to be equipped immediately, in order to join with the other five ſhips that lay at anchor in the road, viz. the Utrecht, the Zealandia, Ter Veer, the Zoutlandia, and the Golden-Doe. The ſame night advice of all that was paſt was ſent to Colonel Haus, with orders to be upon his guard, and to retire with his troops to the ſugar-mill belonging to Mr. Hoek, or any other convenient place, from whence he might be able to maintain a communication with the Receif. Letters were alſo diſpatched to Mr. Dormont in Itamarika, to Mr. Carpentier in Goyana, and Mr. de Linge in Parayba, to advertiſe them of the enemy's arrival.

To ſupply the want of ſeamen, many labourers were preſſed on board the ſhips, as were likewiſe thirty-five land-ſoldiers of Moucheron's company, who had ſpoiled their feet by their laſt long march; and out of the ſhip Elias were a thouſand pounds of gunpowder, and out of the Douchter ſix hundred, ſent aſhore for the uſe of the garriſon.

Not long after dinner-time the enemy's fleet, conſiſting of twenty-eight or thirty ſhips, appeared in ſight of the Receif, where they caſt anchor to the north of four of our ſhips and a yacht, which lay in that road; ſo that the next following night was ſpent in ballaſting the two ſhips, the Elias and Deventer, and in fitting them for the ſea. The next morning with break of day, the Portugueſe admiral who carried the white flag, ſent Martinho de Rebeira and Balthaſar de Caſtilho, as his deputies, aboard the Dutch admiral Cornelius Lichthart, who brought four letters, viz. two from the governor of the Bahia, Antonio Telles de Sylva, the firſt dated the 21ſt, and the ſecond the 22d of July; the third from the Portugueſe admiral, Salvador Korrea de Saa Benavides, and the fourth from Jeronymo Sarrao de Pavia, dated the 12th of Auguſt; beſides another letter from the before-mentioned governor, directed to John Fernandes Vieira, Anthony Kavalkanti, and the other heads of the Portugueſe rebels.

Admiral Lichthart carried the ſaid deputies aſhore, in order to deliver the letters to the council; which being tranſlated, were read at the meeting of the council the 14th of Auguſt, as well thoſe of the governor from the 21ſt, 22d, and 24th of July,

as from Salvador Korrea de Saa Benavides, commodore of the Portugueſe fleets, and Jeronymo Sarrao de Pavia, who had landed Andrew Vidal with his men near Rio Formoſa.

The firſt letter was as follows:

The firſt Letter.

" Purſuant to Your Lordſhips' letter, and the propoſitions made in your behalf by your deputies, Mr. Balthaſar Vander Voerde, counſellor of Juſtice, and Dieterick Hoogſtraten, governor of the cape of St. Auſtin, in which you requeſted the recalling of the troops under Henry Dias; I being deſirous to fulfil my promiſe, ſent to you in my anſwer by the moſt effectual means that I could poſſibly think of, have ſent the two colonels, Martin Soares Moreno and Andrew Vidal de Negreiros (both perſons of unqueſtionable conduct and prudence), to the captainſhip of Pernambuko, with full power and inſtructions to reduce the revolted Portugueſe to their due obedience, for which reaſon alſo I have ſent a letter to the ſaid rebels, to exhort them to the remembrance of their duty, and to lay down their arms. Which, that it might prove the more effectual, I have ſent thither ſufficient force, which may be ſerviceable to Your Lordſhips, to reduce thoſe that remain obſtinate to reaſon, and to chaſe the rebellious troops out of your dominions. I hope that with God's aſſiſtance this may prove an effectual means to quench the fire of rebellion, to reſtore the peace of Brazil, and to encreaſe the good underſtanding and friendſhip which has been eſtabliſhed betwixt both theſe nations. We recommend you to God's protection, remaining

" Bahia, July 21, 1645. " Your Lordſhips' affectionate ſervant,

ANTONIO TELLES DE SYLVA."

The ſecond letter of the ſaid governor to the council runs thus:

The ſecond Letter.

" I have diſpatched my orders to Colonel Jeronymo Sarrao de Pavia, captain-major of our fleet (which I have ſent to your aſſiſtance), to deliver theſe preſents to you, immediately after the landing of the forces aboard the ſaid fleet, and to offer in my name all the aſſiſtance he is able to give you, purſuant to my command and Your Lordſhips' requeſt. I am very ready to embrace this opportunity to give you theſe marks of my zeal for your welfare, eſpecially in contributing what in me lies to the reducing of your revolted ſubjects to their obedience. Neither do I in the leaſt queſtion, but that by this expedient the flames of an inteſtine war will be quenched, beyond all hopes of being ever rekindled hereafter; and that I ſhall have the ſatisfaction of having been inſtrumental to anſwer the expectation of Your Lordſhips, purſuant to the propoſals made to me upon that account in your behalf. So recommending you to God's protection, I reſt

" Your Lordſhips' affectionate ſervant,

" Bahia, July 22, 1645. ANTONIO TELLES DE SYLVA."

Beſides theſe he ſent another letter by Don Salvador Korrea de Saa Benavides, admiral of the Portugueſe fleet, directed to the council of Dutch Brazil, as follows:

The

The third Letter.

" Whilſt I was endeavouring to ſatisfy the requeſt made to me by your ambaſſadors, and buſied in embarking the forces deſigned for your ſervice, under the command of the two colonels Martin Soares Moreno and Andrew Vidal de Nigreiros, together with Colonel Jeronymo de Payva, captain-major of the ſaid forces, Salvador Korrea de Saa Benavides, admiral of this ſtate, and a member of the council of tranſmarine affairs, eſtabliſhed by authority of the King my maſter, happened to arrive, by God's peculiar direction, with his fleet from Rio de Janeiro, in the Bahia, in order to conduct them to Portugal. But being deſirous to redouble my efforts, as well in the conduct of his perſon as in the ſtrength of his fleet, to render the whole more ſerviceable to Your Lordſhips, I thought convenient to ſend the ſaid admiral, with the fleet under his command, in conjunction with the reſt, to the revolted captainſhip; not queſtioning, but that, by his prudent conduct and authority, he will be very inſtrumental in reſtoring the peace in your dominions, according to our utmoſt wiſhes; and I live in hopes, that this may ſerve as real demonſtrations of the good underſtanding and friendſhip I am willing to cultivate betwixt theſe two ſtates, both as a juſt friend and good neighbour. I recommend you to God's protection.

" Your affectionate ſervant,

" Bahia, July 25, 1645. ANTONIO TELLES DE SYLVA."

The chief contents of theſe letters tended to perſuade the great council of the Dutch Brazil, that the governor of the Bahia had, purſuant to the requeſt made by the deputies of the ſaid council to him, ſent certain land-forces under the command of the two colonels Martin Soares Moreno and Andrew Vidal de Nigreiros, aboard the fleet commanded by Jeronymo Sarrao de Payva, in conjunction with the whole fleet of Rio de Janeiro, under the conduct of Admiral Korrea, to aſſiſt them both by ſea and land, as is evident from the words of the preceding letters: he alſo requeſted by his deputies, viz. Captain Martinho de Rebeira, and Auditor-general Balthaſar de Caſtilho, that the great council would be pleaſed to acquaint the King his maſter with it, in a particular letter from them to His Majeſty.

What deſerves our particular obſervation in his letter to John Fernandes Vieira, and the reſt of the rebels, is, that he calls them the King's ſubjects, unto whom he has ſent this ſuccour for their defence; yet with this reſtriction, in order to reduce them by all gentle means to their former obedience to the Dutch government. It being evident, that the propoſitions made by our deputies to the Governor Telles, tended to no other purpoſe than to engage him to recal Kamaron and Dias, and ſuch others as were come to join with the rebellious Portugueſe, out of the Dutch Brazil, and, in caſe of refuſal, to declare them rebels and enemies of the King of Portugal; but he, directly contrary to the intention and requeſt of the ſaid council, had, inſtead of recalling them, ſent theſe forces to their ſuccours; and, inſtead of leaving them to the diſpoſal of the council, had cauſed them to be landed in a remote place, where the ſaid Kamaron and Dias were with their forces at that time. Neither was the council ignorant of their intention, in ſending a fleet into the road of the Receif at this juncture; tending to no other end than to back the revolted rebels in their deſign, and to encourage the reſt to take up arms againſt them.

The council was fully ſatisfied as to this point, when they received advice from the cape of St. Auſtin, that the garriſon of Serinham had been forced to ſurrender to Andrew Vidal after his landing thereabouts.

Their

Their chief debate then turned upon this point, by what means this fleet might be removed from the road of the Receif and our coaſts; conſidering, that the whole naval force of the Dutch then ready to ſail, conſiſted only in five ſhips, viz. the Utrecht, Zealandia, Ter Veere, Zoutlandia, and the Golden-Doe, not very well manned, and but indifferently provided with ammunition, eſpecially with gun-powder, and few ſoldiers could be drawn out of the neighbouring garriſons; whereas the Portugueſe fleet conſiſted at leaſt in eight or ten ſtout ſhips, the admiral being a two-decked ſhip, reſembling at a diſtance one of their large galleons; ſo that the attacking of them appeared to be a hazardous enterprize. After mature deliberation, it was unanimouſly reſolved in the ſaid council, to return thanks to the Admiral Salvador Korrea de Saa Benavides, for the offered ſuccours againſt the rebels, and to tell him the reaſons that obliged us to deſire him to retire with his fleet out of our road, as will more at large appear out of the following letter: it was thought convenient to diſpatch the ſaid letter immediately, and whilſt we ſtaid for his anſwer, to uſe all poſſible diligence in equipping the two before-mentioned ſhips, the Deventer and Elias; that if the Portugueſe refuſed to comply with the council's requeſt, we might be in a condition to attack them, and to drive their fleet from our coaſt, without which we ſaw but little probability to make our party good againſt the rebels, as long as they were backed by conſtant ſupplies from the Bahia. It was alſo taken into conſideration, whether it were not expedient to detain one of the Portugueſe deputies till ſuch time that Jeronymo Sarrao de Payva ſhould, according to the requeſt of the council, come aſhore in the Receif; but this propoſition was rejected, for fear of furniſhing the Portugueſe with a new pretence of ſtaying in our road: Mr. Gilbert de Wit and Henry Moucheron, both members of the council of juſtice, being ordered to carry the ſaid letter, they went aboard the Portugueſe admiral the ſame evening, unto whom they delivered the following letter to Salvador Korrea de Saa Benavides.

A Letter from the Council to the Portugueſe Admiral.

"We underſtand, both out of Your Lordſhip's letter, and thoſe of the Governor Antonio Telles de Sylva, delivered to us by Captain Martin de Rebeira, and the Auditor-general Balthaſar de Caſtilho, as alſo by the verbal aſſurances given to us by them in your behalf, that your coming with the fleet into our road is with no other deſign than to aſſiſt us with your authority and council in bringing the rebels to reaſon, for all which we return our hearty thanks to Your Lordſhip. But at the ſame time we cannot forbear to repreſent to you, that the coming with ſo conſiderable a fleet at this juncture, gives us no ſmall cauſe of jealouſy, not only becauſe we never requeſted any ſuch aſſiſtance, but alſo by reaſon that inſtead of recalling Kamaron and Henry Dias with their troops, the two colonels Andrew Vidal and Martin Soares Moreno, have, under pretence of reducing the rebels to obedience, landed their men and ammunition without our knowledge, in a far diſtant place, and, conſequently, for the defence of the revolted Portugueſe; whereas (purſuant to His Excellency the Governor's promiſe to us) this reduction might have been much better obtained by a ſevere proclamation, to oblige them to return to the Bahia; or at leaſt the before-mentioned colonels ought to have made their firſt addreſſes to us. Theſe proceedings have, contrary to Your Lordſhip's intention, drawn this ill conſequence after them, that many of the inhabitants, imagining no otherwiſe than this fleet was intended for the aſſiſtance of the revolted Portugueſe, have alſo begun to take up arms, in order to join with them; which obliges us to return our thanks to Your Lordſhip for the offered ſuccours, deſiring you would be pleaſed, with all poſſible ſpeed, to

retire

retire with the fleet out of the road; which, as it will undeceive the inhabitants concerning the ſiniſter interpretations of Your Lordſhip's intentions, ſo it will ſerve as an effectual means to keep them in quiet, which at this juncture will work upon us a ſingular obligation. What relates to Your Lordſhip's requeſt to take in freſh water and fuel here, being ill-provided with both by reaſon of your ſudden departure from the Bahia, we ſhould be very ready to comply with it, were it not for the before-alleged reaſons, and the badneſs of the ſeaſon, which would make it very tedious, which obliges us to beg your excuſe for this time upon that account. His Excellency Antonio Telles de Sylva having told us in his letter that he had ordered Jeronymo Sarrao de Payva, immediately after the landing of the infantry under Martin Soares Moreno and Andrew Vidal, to give us in perſon a full account with what power he was inſtructed by His Excellency, we deſire Your Lordſhip to ſend the ſaid Jeronymo Sarrao de Payva without delay to us, to confer with him concerning the inſtruction he has received from His Excellency, in relation to the ſending and landing of theſe officers and land-forces. For the reſt, we refer ourſelves to our deputies, counſellors in our court of juſtice here, unto whom we deſire Your Lordſhip to give full credit, proportionable to their own merits and the truſt we have repoſed in them. God protect Your Lordſhip.

" Signed by HENRY HAMEL,
A. VAN BULLESTRAET,
P. J. BAS,
J. VAN WALBECK,
G. DE WIT,
J. ALBRECHT,
HENRY DE MOUCHERON,
J. VAN RAESVELT,
and
J. C. LICHTHART."

" Receif, Aug. 13, 1645.

This letter was pitched upon by the before-mentioned great council, as the beſt expedient at this juncture, till, by the conjunction of the Deventer and Elias, we might be put in a probability of diſlodging them by force, if they refuſed to retire at the council's requeſt.

The 14th by break of day, we ſaw the whole Portugueſe fleet under ſail, and for the moſt part out of ſight; and conſidering that the two boats, which carried both ours and the two Portugueſe deputies, would ſcarce be able to overtake them, and that our deputies in their return were to give an account to our admiral on board his ſhip, whether, purſuant to the council's letter, the Portugueſe admiral had conſented to ſend Jeronymo Sarrao de Payva to the Receif, in order to open his inſtructions to the great council, which they had now all the reaſon to believe he would not, they diſpatched immediate orders to our admiral Lichthart, to make all the ſail he could with the ſhips under his command, after the Portugueſe, to obſerve their motions, and to endeavour to come up with the flag ſhip, on board of which was the ſaid Jeronymo Sarrao, to deſire him to return with his ſhips to the road of the Receif, in order to confer with the council in perſon, concerning his inſtructions. But after mature deliberation, the whole proceedings of the Portugueſe, and the letters of the governor of the Bahia concerning the pretended reduction of the rebels, being looked upon as mere amuſements, orders were ſent to our admiral Lichthart, to oblige all the Portugueſe ſhips he could meet with, to ſtrike, and to treat them for the future like enemies.

The

The 28th of Auguſt, the council was advertiſed by letters dated the 20th, at the fort of St. Margaret in Rio Grande, from the governor de Linge, that twelve of the enemies ſhips, after having landed ſome forces near Tamandare, were come into the bay of Traikona; and that according to the depoſition of a certain Portugueſe priſoner from on board the ſaid fleet, they intended to land likewiſe ſome men thereabouts, provided they might be joined by the rebels from the Matta; but if they failed to come, they would return to the Bahia. Whereupon orders were ſent to Mr. de Linge, to bring what forces he was able together, either of ſoldiers, Tapoyers, or Brazilians, to prevent their landing, and their conjunction with the rebels in that captainſhip.

The next thing under debate was, whether it were not convenient to ſend ſome ſhips under the command of Admiral Lichthart that way, to attack the Portugueſe; after various conſultations, it was agreed, to ſtay until all the ſhips might be got ready for that ſervice, to ſupply the want of ſeamen by good able labourers from the Receif, and ſo to render ourſelves as formidable at ſea as poſſibly could be.

In the meanwhile, the ſaid Admiral Lichthart ſet ſail the 1ſt of September with four ſhips and a yacht only, he himſelf being in the Utrecht, but was forced by ſtreſs of weather (in which the Zealandia loſt a maſt), and for fear of the rocks, to come to an anchor not far from the Portugueſe, who endeavoured to gain the wind of him. Mr. de Wit and Moucheron returned alſo with their boat, having not been able, by reaſon of the violent winds to overtake the Portugueſe, but had put their deputies on board a ſmall veſſel to ſail after their fleet.

The ſame day the council received letters from Mr. Hoogſtraten, Ley and Heck, from the cape of St. Auſtin, that the enemies had poſted themſelves in the ſugar-mills Salgado, Surhague, and other places thereabouts; and becauſe the Portugueſe fleet, which had been ſeen off the bay of Traikona, appeared again in ſight of the Receif the ſame evening, it was thought expedient to order Admiral Lichthart immediately to go on board the Utrecht, and with that and the ſhip Ter Veere and two ſmaller veſſels, to keep a watchful eye over the Portugueſe: care was alſo taken to get the ſhip the Overyſſel ready againſt next day, not queſtioning that when joined by this and the Zoutlandia and Golden-Doe, which were ſent abroad for intelligence, they ſhould be able to cope with the Portugueſe, or at leaſt to force them out of the road. The next morning early, the Portugueſe fleet might be plainly diſcovered from the Receif, but our admiral was not able to ſtir by reaſon of the contrary winds; nevertheleſs the Zoutlandia and the Ter Veere, which came from the ſouth a cruiſing, made all the ſail they could to eſcape the Portugueſe, which they did, being much the nimbler ſailors, and joined our fleet.

The 4th of September, Major Bayert and Mr. Volbergen complained to the council, that Mr. Vierbergen, Count Maurice's ſteward, had made it his buſineſs to give it out, that they being impowered to cut down certain trees, and ſome part of the ſtabling and gardens, for the better fortifying of the fort Erneſtus, had tranſgreſſed their commiſſion, in cutting down many of the great trees, with an intention, as he ſaid, to ruin the whole plantation; whereas they declared, that they had been very careful in preſerving as much as poſſibly could be, all the largeſt cocoa-trees that ſtood not in their way; that by theſe rumours, the rage of the populace had been raiſed to that pitch that they had much ado to appeaſe them, they being for the cutting down not only of all the trees, but alſo for the pulling down of the whole palace of Count Maurice; all which they deſired to be regiſtered in the public records, to ſerve them for a legal defence in due time and place.

In the mean-time our Admiral Lichthart being gone out in purſuit of the Portugueſe fleet, met with them in the bay of Tamandare, conſiſting of ſeven ſhips, three ſmaller veſſels, and four barks, the reſt being ſent loaden with ſugar to Portugal. He was not as yet joined by all the ſhips from the Receif; but being reſolved not to let ſlip this opportunity of attacking the enemy, ſent the 7th of September advice to the great council, that being come in ſight of the enemy's fleet near the bay of Tamandare, conſiſting in all of eleven veſſels, he was reſolved to attack them there, deſiring them to ſend as many ſhips as poſſibly they could immediately. Hereupon it was reſolved to join the two ſhips the Deventer and Elias, with the Unicorn and Leyden, then lying ready in the road and bound for Holland, and ſuch tenders as were at hand, and to ſend them forthwith to the Admiral Lichthart. Purſuant to theſe reſolutions, the whole next following night was ſpent in manning the ſaid ſhips, but were the next morning detained for ſome time by the contrary winds.

The ſame day orders were given to all the ſoldiers and inhabitants of the iſle called Antonio Vaez, to provide themſelves with baſkets filled with earth; and paliſadoes were planted from the point of the Receif next to the river, to the utmoſt point near the ſea-ſide, and five great guns were planted upon a certain wreck, from whence they could command the ſea-ſhore as far as to the fort of five baſtions.

The 8th of September, the Dutch admiral having ordered the red flag to be put up, boarded the Portugueſe admiral carrying ſixty guns and three hundred men: he behaved himſelf very valiantly, having poſted himſelf at the entrance of his cabin with a flaming ſword in his hand, wherewith he killed three or four, but having received ſeveral wounds, was at laſt forced to yield. The reſt of the ſhips following the example of their admiral, had likewiſe boarded the Portugueſe ſhips; but theſe ſeeing the flag taken down from the admiral (a diſmal ſignal of her misfortune), they loſt all hopes, and threw themſelves headlong into the ſea, to eſcape the fury of the fire and ſword; whither being purſued by the Dutch in their boats, many periſhed before they could reach the ſhore. Above ſeven hundred Portugueſe were killed in this action, beſides a great number of priſoners, among whom was the admiral himſelf: three ſhips were taken and ſent to the Receif; the reſt were ſet on fire, being not in a condition to be carried off, becauſe they had cut their cables and were run aſhore, where the Portugueſe had planted ſome cannon upon batteries, which ſo annoyed our people, that fearing they might run aground within the reach of the enemy's cannon, they ſet fire to them, and with much ado got their ſhips clear from among the ſhelves. After this engagement I returned to the Receif to take care of my affairs there, and the admiral ſent an expreſs in a fiſher-boat, with the following letter to the council of the Dutch Brazil:

A Letter from the Dutch Admiral to the Council.

" No ſooner were the ſhips Leyden, the yacht, and the Doe, arrived laſt night, near the point of Tamandare, but purſuant to the reſult of the council of war, it was reſolved to enter the next morning within the bar, which was performed in the following order: firſt the ſhip the Utrecht admiral, ſecond the Ter Veere, third the Zealandia, fourth the Overyſſel, fifth the Zoutlandia, followed by the Doe and Leyden, and the yacht, the Unicorn; the tenders being ordered to be at hand as occaſion ſhould require. Being come within the bar, we found the enemy ſeven ſail ſtrong, beſides three ſmall veſſels and four barks; and that they had planted ſeveral pieces of cannon upon two batteries on the ſea-ſhore. We received a very warm ſalute both from their ſhips and batteries, and ſeveral vollies of ſmall ſhot; notwithſtanding which, the ſhip the Utrecht courage-

ouſly laid the Portugueſe admiral on board, after a ſhort but ſharp diſpute took the ſhip and the admiral's flag: to be ſhort, the reſt of our ſhips behaved themſelves ſo well, that ſoon after they forced the Portugueſe to quit their ſhips; God be praiſed for this victory. Jeronymo Sarrao de Paiva the Portugueſe admiral is our priſoner, and at preſent in my ſhip, being ſorely wounded, whom I intend to deliver up to Your Lordſhips ſo ſoon as I ſhall come to the Receif; in the mean-while, I intend to ſend back the Leyden and the Unicorn to-morrow morning, according to Your Lordſhips directions. And foraſmuch as there is likely to be no more action hereabouts, the enemy having ſtrengthened themſelves near the ſea-ſhore, I will the firſt opportunity return to the Receif, where I hope to give in perſon a more ample account of the whole action; I recommend Your Lordſhips to God's protection. In haſte,

" Your Lordſhips' ſervant,

" From the ſhip the Utrecht, within the " bay of Tamandare, September 9, " 1645." CORNELIUS LICHTHART."

The Portugueſe admiral Sarrao de Payva, in his letter dated the 18th of September, gave the following account of his engagement to the two colonels Martin Soares Moreno and Andrew Vidal Negreiros:

The Portugueſe Admiral's Letter to Andrew Vidal.

" It being the general diſcourſe here in the Receif, which is likewiſe come to my ears, that it is reported by you there how the Dutch admiral, John Cornelius Lichthart, did before the beginning of the laſt engagement enter the bay with a white flag, thus ſurpriſing our people, killed many of them in cold blood. I thought myſelf obliged to acquaint you, that indeed two days before the ſaid engagement a yacht and a bark with white flags appeared at the entrance of the bay, at which one of our ſmall veſſels and a bark ſhot three cannon-ſhot. But that day, when the admiral entered the ſaid bay, he had put up both the Dutch and red flags. Neither is it true what had been ſaid of their killing our men in cool blood, there being not one man ſlain aboard my ſhip, but during the heat of the engagement, five or ſix that had hid themſelves below deck having received quarter, and a ſoldier ſorely wounded, ordered immediately to be looked after with all care imaginable. Neither was there a ſtroke given after the yielding of the ſhip, but every body treated and provided for according to his quality and preſent neceſſity. The reaſon why ſo few had quarter given them was, becauſe moſt leapt overboard, the ſeamen firſt, and then the ſoldiers; I being not able with ſword in hand to keep them from chuſing rather to periſh in the ſea than to ſtand it out aboard the ſhip. Two or three perſons of note ſeeing me ſorely wounded, freely gave me quarter, without knowing either my perſon, or being aſked it by me; a convincing argument that they would not have refuſed the ſame to all the reſt that would have begged quarter. I muſt confeſs myſelf ſo much obliged to the humanity and generoſity of the admiral, that it is not to be expreſſed in writing. Beſides that, it is unqueſtionable that we firſt ſhot at them, both from our ſhips and batteries near the ſea-ſhore. I have given you a true account of the whole matter, of which, as I have been an eye-witneſs myſelf, ſo I do not queſtion you will give an entire credit to what I have written to you on this account. God protect you for many years.

" Receif, Sep. 18, 1645. JERONYMO SARRAO DA PAYVA."

Andrew

Andrew Vidal ſent a letter in anſwer to this by one of our drummers (ſent to the enemy upon ſome errand), dated the 20th of September, as follows:

His Anſwer to the Admiral's Letter.

"We are ſufficiently ſatisfied by Your Lordſhip's letter, that, inſtead of being entertained according to your merits, you receive the ſame ill treatment with the reſt of our countrymen; though, conſidering that your caſe is different from the reſt, you ought to have been treated in another manner, Your Lordſhip being come without the leaſt intention of waging war againſt them, (which they ought to have made due reflection upon,) but only as you were going to convoy ſome ſhips homeward, did at their own requeſt land our forces in that captainſhip; conſidering the ill uſage and tyrannies our ſubjects have received at their hands, we are afraid we cannot promiſe Your Lordſhip a much better entertainment; of all which murders, committed in cold blood, we have taken ſo circumſtantial an account, that we are ſure we ſhall be able to juſtify our cauſe and ourſelves, both to the ſtates of the United Netherlands and the reſt of our allies; for we have fiſhed up many of our Portugueſe with bullets and ſtones tied to their legs and necks; ſome had the good fortune to be ſaved as they were ſwimming aſhore, but many were burnt alive in the wrecks of the ſhips; the intention of theſe gentlemen being without queſtion, by making ſo general a ſlaughter among their fellow-chriſtians, to cut us from all hopes of returning home: of all which they will be obliged to give one day a ſevere account, both to God Almighty and thoſe who ſhall require ſatisfaction for it at their hands, it being our conſtant opinion that they never will be able to juſtify their cruelties, and the miſchief done to our people, either before God or the King our maſter. We hope Your Lordſhip will reſt ſatisfied in this preſent condition, and put your truſt in God and our King, who are ſtill alive to demand a ſevere ſatisfaction from them. God protect Your Lordſhip.

"From our quarters at St. John in the Vergea, Sept. 29, 1645.

"(Signed) ANDREW VIDAL DE NEGREIROS."

A certain lieutenant belonging to the enemy, called Franciſco Guomes, came along with the ſame drummer, with a letter from the ſaid Andrew Vidal directed to the great council, the contents of which were as follow:

Andrew Vidal de Negreiros's Letter to the Great Council.

"I received Your Lordſhip's letter at Iguaraſu, wherein you ſeem to be extremely diſguſted at the killing of ſome Brazilians, with their wives, by our ſoldiers, under pretence that the abſolute command over them belongs only to you; which I cannot but be much ſurpriſed at, when I conſider that Your Lordſhips in your proclamation, wherein you command not to give quarter to any Portugueſe inhabitants, though natural ſubjects of the King my maſter; you alledge, among other reaſons, becauſe they had received their birth and education in this captainſhip (which, however, was firſt conquered by the Portugueſe kings at the expence of many of their ſubjects), whereas now you would impoſe this hardſhip upon the ſame inhabitants, to give quarter to thoſe Brazilians, who not long ago have been maintained and inſtructed in the Catholic faith, as being their vaſſals, and conſequently not your's, but the King my maſter's ſubjects. Your Lordſhips ought to remember, that you are not in poſſeſſion of this country by

right of ſucceſſion, or any other legal pretenſion, but baſely by force of arms. We deſire Your Lordſhips to take effectual meaſures concerning the methods to be obſerved in the carrying on of this war, which we hope will be managed ſo by your prudence as that quarter may be allowed to the inhabitants of our nation; if not, I ſhall be obliged to act as I find it moſt conſiſtent with my honour, to take ſatisfaction for theſe injuries. We deſire alſo to put a ſtop to the murdering of the women, children, and ancient people, in cool blood, as has been done lately at Tihicupapo, Rio Grande, and Parayba. God protect Your Lordſhips.

"From our quarters at St. John, Sept. 29, 1645.

"(Signed) ANDREW VIDAL DE NEGREIROS."

The great council returned, with the conſent of the members of the court of juſtice and Colonel Garſman, an immediate anſwer to the ſaid letter, wherewith they ſent the ſaid lieutenant, in company of the drummer, back the ſame evening.

But we muſt look back to their proceedings: after Andrew Vidal de Negreiros and Martin Soares Moreno had landed their men, to the number of eighteen hundred or two thouſand, the 28th of July 1645, with good ſtore of arms and ammunition, near Tamandare, betwixt Olna and Formoſa, they were ſoon after joined, not only by four companies which had taken their way by land from the Bahia, but alſo by the troops under the command of Kamaron and Henry Dias, who had hitherto kept Porto Calvo blocked up by their forces. From thence they directed their march to the city of Serinhaim, and laid ſiege to the fort in which there was only a garriſon of eighty Dutch ſoldiers and ſixty Brazilians, commanded by Samuel Lambert and Coſmo de Moucheron. Two days after their arrival near Serinham, the enemy poſted themſelves in the D'Ingenio of Daniel Hohn; about which time Henry Dias was ſeen in Serinham, notwithſtanding the Portugueſe commanders Andrew Vidal and Moreno diſowned to have any correſpondence with them at that time. The ſaid commanders had alſo ſent the Captain-major Paulo de Kunha before to ſummon the ſaid fort, which he did accordingly by his letter dated the 2d of Auguſt, at the ſugar-mill of James Peres, and directed to Samuel Lambert.

The Summons ſent to the Fort of Serinham.

"I am come to this ſugar-mill by ſpecial orders from Martin Soares Moreno and Andrew Vidal Negreiros, our governors, they being very buſy at preſent in landing their men; they have ſent me before to prevent all miſchief that otherwiſe might happen betwixt you and us; and if in the meanwhile you will join your forces with ours, or retire with them to ſome other place, you may ſafely do it, I being ready to furniſh you with paſſes for that purpoſe, the before-mentioned governors being come with an intention to put a ſtop to the preſent inſurrection. God protect you.

"From the ſugar-mill in St. Antonio, Auguſt 2, 1645.

PAULO DE KUNHA."

Two days after, the before-mentioned commanders-in-chief ſent another letter to Samuel Lambert, very little different from this.

A ſecond

A ſecond Summons from the Portugueſe Commanders.

"We ſuppoſe you not to be acquainted with the intention of our coming, which makes us to be the leſs ſurpriſed at your ſtanding upon your defence. The great council of the Dutch Brazil have ſent an embaſſy to our governor-general by ſea and land, Antonio Telles de Sylva, to deſire His Excellency to make uſe of his authority and forces to appeaſe the inſurrection in this captainſhip, which requeſt being readily granted, in order to be ſerviceable to the council, and to free the Portugueſe from the outrages they ſuffered in their houſes and families, we were ſent to land our forces near theſe ſugar-mills of Rio Formoſa; which having been done accordingly, and ready to march further into the country, we thought fit to acquaint you with our intentions, which in all probability may have reached your ears, the fame having been publiſhed in ſeveral places by our proclamations, of which we ſend you one, deſiring it may be affixed on the church of Serinham. We deſire you therefore to lay by your arms to remove all ſuſpicion; not queſtioning but that we ſhall meet with a favourable reception on your ſide, as we on the other hand ſhall make it our main endeavours to reſtore tranquillity among the revolted Portugueſe by all gentle means that poſſibly may be uſed; aſſuring you at the ſame time, that in caſe you refuſe to concur with us in this deſign, you will cauſe no ſmall diſpleaſure to the great council of the Dutch Brazil. God protect you.

"From the ſugar-mill of Formoſa, Auguſt 4, 1645.

MARTIN SOARES MORENO,
ANDREW VIDAL DE NEGREIROS."

The next following day Paulo de Kunha came in perſon before the place with a body of ſoldiers and boors, provided with arms from on board the fleet, and after having inveſted the place, cut off the water of the fountains and rivers from the beſieged. In the meanwhile Rowland Carpentier and Daniel Hohn had been ſent away with paſſes by the commanders of the Portugueſe forces, who embarked their heavy cannon on board Carpentier's veſſel, in order to carry it up the river Formoſa. Within five days of the arrival of Paulo de Kunha, the whole force of the enemy appeared in ſight of Serinham in battle array, and cloſely blocked up the fort. The Dutch garriſon was inconſiderable in proportion of the enemy's ſtrength, who had ſo well guarded all the avenues leading to the place, that they were ſoon reduced to want all manner of neceſſaries, eſpecially water. Beſides this, many of the circumjacent inhabitants and volunteers went daily over to the enemy, who gave them an account of the condition of the fort; and notwithſtanding they had ſent ſeveral meſſengers to the Receif, they had heard nothing from the council for two months laſt paſt; ſo that being without all hopes of maintaining their poſt, they judged it more for the intereſt of the company to preſerve the garriſon, which might be ſerviceable in other places, where there was ſufficient want of good ſoldiers, than raſhly to expoſe themſelves to the fury of the enemy's ſword: accordingly Samuel Lambert, Coſmo de Moucheron, and La Montagny, who commanded in the fort, upon the ſecond ſummons made by the enemy, entered the 6th of Auguſt into a capitulation with the Portugueſe, of which Moucheron gave an account in perſon the 15th of Auguſt to the council, and delivered it the 20th of Auguſt to them in writing.

"We the Portugueſe commanders make known to every body that we were ſent into this country at the requeſt of the great council of the Dutch Brazil, to appeaſe

the revolt and troubles ariſen among the Portugueſe inhabitants. But at our landing here, being informed that notwithſtanding this requeſt and our good intention, the Dutch had murdered many Portugueſe in cool blood (it being evident that they had cut to pieces ſeveral Portugueſe, who were inticed into a church for that purpoſe), and that they had formed a camp to oppoſe us, which ought to be a caution to us, not to leave any ſtrong holds behind us, whilſt we are marching towards the Receif, we have thought it neceſſary to enter into this capitulation, till ſuch time that we may have the opportunity of concerting new meaſures with the great council, of which the articles are as follow:

"I. The commanders Samuel Lambert and Coſmo de Moucheron ſhall have leave to march out of the fort and caſtle, with the garriſon, with enſigns diſplayed, all their arms, matches burning, &c.

"II. They ſhall be permitted to march along the road with their enſigns, and ſwords drawn, and ſhall be ſafely conducted by one or more captains, who alſo ſhall be obliged to provide them carriages and boats, for the tranſportation of their perſons and goods to the Receif.

"III. The Portugueſe oblige themſelves to reſtore to Moucheron all what has been taken from him, and belonged to him before the ſiege.

"IV. They alſo oblige themſelves to engage the inhabitants of the city as well as thoſe of Kamara, to paſs by all paſt injuries either by word or deed; and that ſuch of the Dutch as are willing to continue there, ſhall be maintained in their poſſeſſions in the ſame manner as the Portugueſe are; and ſhall enjoy the ſame privileges and their own religion, provided they do not preach in public, and pay due reverence to conſecrated places. They ſhall be at liberty to traffic with the Portugueſe, and call in their debts as before, neither ſhall they be obliged to take up arms againſt the ſtates of the United Provinces.

"V. The Dutch officers ſhall reſtore to the Portugueſe all their Brazilians, with their wives and children, as being ſubjects of King John IV. whom God preſerve; and what relates to their reception and entertainment, is to be left to the diſcretion of the chief commanders of the Portugueſe.

"Upon theſe conditions they ſhall be obliged to ſurrender the fort, with every thing thereunto belonging, this afternoon, but are permitted to provide themſelves with neceſſaries for their journey, which they ſhall have liberty to perform at their own leiſure.

"(Signed) ANDREW VIDAL DE NEGREIROS,
ALVARO FREGOSO D'ALBUQUERQUE,
DIOGNO DE SILVEIRA,
LOPES LAURENZO,
FEREIRO BETENKOR,
SUPPOLITO ABUKO DE VERKOSA, and
SEBASTIAN DE GUIMARES."

Immediately after the ſurrender of the fort, Moucheron entered into a long diſcourſe with the Portugueſe commanders, about their proceedings, which he told them were far different from what the governor pretended in his letters, to wit, the appeaſing of the revolt of the Portugueſe inhabitants, according to the requeſt of the great council. They anſwered him with tergiverſations, telling him that they would be very careful not to act contrary to the peace eſtabliſhed betwixt the King his maſter and the States-General.

General. But it was not long before they began to lord it over the country, by taking ſuch as were in the leaſt ſuſpected to them into cuſtody, and taking an account of thoſe of the Dutch that had married Portugueſe women; nay, they erected a court of juſtice of their own, and forced Moucheron to ſell his ſlaves for the fourth part of what they were worth. They had ſo little regard to the late articles, that they cauſed thirty Brazilians, part of that garriſon, to be tied to the paliſadoes, where they were ſtrangled; the Portugueſe alledged in their behalf, that they had ſuffered death for certain crimes they had confeſſed themſelves, though it is more probable they were made ſacrifices to the diſcontented Portugueſe inhabitants, that had made heavy complaints at the Brazilians. However, about thirty of them were ſpared, and beſtowed upon the officers to carry their baggage, and their wives given to the inhabitants. The Portugueſe made Alvaro Fregoſo d'Albuquerque governor of the city and fort, and made one Francis de la Tour, a French deſerter, captain over forty deſerters, who had taken ſervice among them.

They alſo raiſed three companies out of the Portugueſe boors or inhabitants, commanded by Pedro Fregoſo, Ignatius Ferrere, and Immanuel de Mello, which were put into Serinham for the defence of that place, where they alſo cauſed two Jews to be baptized, called Jacquo Franco and Iſaac Navare. Moſt of the Dutch who had any poſſeſſions or ſugar-mills thereabouts had ſafe-guards allowed them, ſo that none, except two, who came to the Receif, left that captainſhip, of which they had ſufficient reaſon to repent afterwards, being very ill-treated by the Portugueſe, as ſhall be ſhewn more at large hereafter.

The 15th of Auguſt in the afternoon, the garriſon of Serinham, conſiſting only of thirty-two men (the reſt having ſtaid behind), arrived in a bark at the Receif; and their commander-in-chief appeared the ſame day before the council, where he gave an account of the reaſons that moved him to ſurrender the place, notwithſtanding which he was ordered to be examined by a court-martial, to anſwer the ſame. The enſign who had conducted the garriſon to the Receif, delivered the ſame day a letter to the ſaid council, from Martin Soares Moreno and Andrew Vidal, dated the 8th of Auguſt, intimating that they were come into the Dutch Brazil, by ſpecial command from the governor of the Bahia, and exaſperating the outrages, they ſaid were committed by the Hollanders againſt the Portugueſe. This letter had another encloſed from the ſaid governor, dated the 30th of July, with a proclamation, to be publiſhed in the captainſhip of Pernambuko, whereby all the inhabitants were ſummoned to appear peremptorily before them, within the ſpace of eight days, to receive their directions for reſtoring tranquillity among them. The letter from Martin Soares Moreno, and Andrew Vidal was as follows:

A Letter from the Portugueſe Commanders to the Council.

"When Your Lordſhips found yourſelves entangled by a dangerous conſpiracy among the Portugueſe inhabitants of this captainſhip, you made your applications to Antonio Telles de Sylva, governor-general of Brazil, deſiring him to make uſe of the moſt effectual means he could to appeaſe this rebellion. About the ſame time the inhabitants of this country by one unanimous voice implored his aid and protection againſt thoſe many affronts, plunderings, murders, and raviſhments of women they groaned under; being reſolved with joint conſent to arm themſelves with ſticks (the uſe of arms being taken away from them by their tyrannical governors) againſt thoſe oppreſſions, and to defend their honour to the laſt gaſp; not queſtioning but that God Almighty would take vengeance

for the blood of ſo many innocent people. They repreſented to His Excellency, that he was obliged by his ſtation to aſſiſt them in this extremity, as they were his countrymen; but if that ſhould not be prevailing enough, reaſons of ſtate would induce him not to force them to deſpair by denying them his aid; which if he did, it ſhould be at the peril of his head, and that he muſt give a ſevere account of it before God Almighty, and others, if they ſhould be conſtrained to beg that from a foreign power which they could not obtain from their countrymen. The governor having taken all theſe preſſing reaſons into mature conſideration, and in reſpect both of Your Lordſhips' requeſt, and the heavy complaints of the Portugueſe, made it his chief care to find out the moſt effectual means (which Your Lordſhips ſeemed to leave to his diſcretion) to appeaſe this revolt. Being ſenſible that the revolt of the Portugueſe inhabitants had taken deep root among them, and was likely to prove more univerſal againſt your government, he judged it moſt expedient to ſend hither certain perſons with ſuch forces as he thought might either by their prudence, and if that failed, by force of arms, reſtore the ſo much-deſired tranquillity. It is upon this account, my Lords, we are come to this place, in order to employ all our force and aſſiſtance, according to your requeſt, purſuant to the peace eſtabliſhed betwixt theſe two nations, in regard of which we value not the expences we have been put to upon this occaſion. But we ſcarce had ſet foot aſhore, when our ears and hearts were ſtruck with the doleful outcries of forty innocent Catholic Portugueſe, murdered in the church of Rio Formoſa, whither they were enticed for that purpoſe, by thoſe that were in your ſervice, without the leaſt reſpect of age or ſex, the very babes being by the natives barbarouſly murdered as they were lying on their mother's breaſts. Neither have the ſighs and groans of many noble maids eſcaped our ears, that were raviſhed in the Vergea and St. Lawrence, by the Brazilians, not to mention here what barbarities have been committed in Pojuka, where is the ſight of many a hermit and innocent babe who were ſlaughtered in a cave. Neither have they abſtained from holy and conſecrated places; they have cut to pieces the images of the ſaints, and ſtripped the queen of heaven, the virgin Mary, our bleſſed lady, of all her apparel; things ſo enormous, and never heard of before, enough to create horror and aſtoniſhment in a generous heart. And notwithſtanding Your Lordſhips had deſired the governor-general to interpoſe his authority, you did form a camp, which continues in the field to this day; and we being obliged by our orders to come to you upon the Receif, we judged it not convenient to leave any armed power behind us, which in time might prove the occaſion of great inconveniences to us; we ſhall endervour to ſhew all due reſpect and kindneſs to your ſubjects, and carry the garriſon of Serinham along with us, until matters may be concerted betwixt Your Lordſhips and us, for the ſervice of God and the ſtate. In the meanwhile, we moſt earneſtly deſire a ſtop may be put to the outrages committed by your ſoldiers hitherto, to avoid all occaſion of a rupture on your ſide; we proteſt on the other hand, in the name of God and John IV. the King our maſter, whom God preſerve, as alſo in the name of the States-General, whoſe power God encreaſe, that we deſire nothing ſo much as the continuation of the late eſtabliſhed peace, which ſhall be the guide of all our actions; of which we have brought along with us an authentic copy, to ſerve us as a ſufficient juſtification by all the princes of Europe. And that Your Lordſhips may be ſatisfied in the reality of it, we have ſent you encloſed a copy of the proclamation publiſhed by us, at our landing in this captainſhip. God preſerve Your Lordſhips.

"Serinham, Aug. 8, 1645. MARTIN SOARES MORENO.
ANDREW VIDAL DE NEGREIROS."

The

The before-mentioned proclamation runs thus:

Their Proclamation.

"We the commanders-in-chief of the Portugueſe forces, Martin Soares Moreno and Andrew Vidal de Negreiros, make known to all perſons and inhabitants of the captainſhip of Pernambuko: that the great council of the Dutch Brazil, having by a letter ſent to the governor and captain-general of Brazil, given advice of the revolt ariſen among the Portugueſe of this place, deſire to endeavour the appeaſing of this rebellion by his aſſiſtance; for which purpoſe the ſaid governor now having ſent us with a ſufficient force into this captainſhip, we command all the Portugueſe, of what condition and quality ſoever, to appear peremptorily within eight days after the publication of theſe preſents before us, in order to reſtore tranquillity among them, purſuant to the requeſt of the lords of the council of the Dutch Brazil. We alſo hereby entreat the ſaid lords, in the moſt friendly manner that can be, purſuant to the tenour of the ſtrict alliance there is betwixt both theſe nations, to ſtop the further perſecution of the Portugueſe, or any other warlike executions, and that if any of their ſoldiers preſume to act contrary to it, they may, upon complaint made thereof to them, be ſeverely puniſhed.

"I Alexes Autunes have penned this proclamation, and I Franco Bravo Deſembarquador have approved it.

MARTIN SOARES MORENO.
ANDREW VIDAL DE NEGREIROS."

The great council reſolved to give a ſhort anſwer to the ſaid letter, and to refute the proclamation by another; and conſidering, that the origin and cauſe of all thoſe troubles and miſdemeanours were laid at the door of the council, they ordered the two counſellors of the court of juſtice, De Wit and Moucheron, in conjunction with Mr. Walbeck, aſſeſſor in the ſame court, to anſwer the ſame, and thereby to repreſent to the council of Nineteen in Holland, that they were occaſioned by the rebels and their adherents.

In the month of Auguſt, the troops lately come from the Bahia marched from Serinham to Pojuka, and ſo to the cape of St. Auſtin, where, being joined by the forces under the command of Kamaron and Dias, and the inhabitants, they reſolved (after our men had quitted Pojuka and the city St. Antonio de Cabo) to attack the fort Vander Duſſen on the cape of St. Auſtin from the land-ſide; purſuant to which reſolution they poſted their troops all along both ſides the river.

The council in the meanwhile being forewarned of the enemy's deſign, had ordered, the 2d of Auguſt, Mr. Adrian Bulleſtraet, one of their own members, and Admiral Lichthart, to go thither with all ſpeed, and to take effectual care that nothing might be wanting for the defence of the place. They were for that end to take a full view of the fort Vander Duſſen and all its out-works, and to conſider whether the redoubt upon the hill called Nazareth, and the battery at the entrance of the harbour, might be repaired for the better defence of the fort. Accordingly Mr. Bulleſtraet and Admiral Lichthart left the Receif the 5th of Auguſt, and arrived the ſame evening in the fort Vander Duſſen, where, having executed their commiſſion, Mr. Bulleſtraet returned the 9th of Auguſt to the Receif, where he gave the following account to the council.

That he left the Receif the 5th of Auguſt, in the morning about nine o'clock, and came the ſame evening to the fort Vander Duſſen on the cape of St. Auſtin.

That the 6th of Auguſt, after forenoon ſermon was ended, he rid with the admiral, and ſome other officers, to the hill of the cape of St. Auſtin; where, having taken a

view of the harbour, he found the ſtone redoubt in a condition to be repaired, without any great charge, the cannon upon the batteries nailed up, but the works towards the ſea-ſide in pretty good order.

That he had ordered a draught to be made, to ſurround the redoubt with paliſadoes, to raiſe a battery within it, to build a guard-houſe, and to widen the ditches. He had alſo ordered a ſtone breaſt-work (for want of wood) to be made on the back-ſide of the battery, with a row of paliſadoes, and a guard-houſe; and that with the firſt fair weather, they ſhould ſet on fire all the buſhes and brambles on the ſaid hill, and clear the ground round about the church Nazareth.

Upon view of the fort Vander Duſſen, he had commanded the major Hoogſtraten with all poſſible ſpeed to put it in a good poſture of defence, the admiral having already taken care to have it ſurrounded with paliſadoes. That on the 7th of Auguſt, having paid off the garriſon, and thoſe belonging to the artillery, he paſſed through very difficult ways to St. Antonio, where he likewiſe paid off the ſoldiery, viſited the retrenchment, and put every thing in the beſt order he could.

That he had bargained with certain perſons to repair the ſaid redoubt on the hill called Nazareth, and the ſtone breaſt-work, the building of two guard-houſes, and ſurrounding both the works with paliſadoes, according to his draught, for nine hundred gilders, the whole to be completed within three weeks time. Here it was he had the firſt notice of the landing of ſome forces from the Bahia, near Rio Formoſa, by the ſame fleet which the week before was ſeen off the Receif. But not being able to get any ſure intelligence, he had ſent a meſſenger to Lieutenant Montangie, then commander in Serinham, to give him a true account of the matter, and in what condition he and his garriſon were at that time; encouraging him by fair promiſes, all communication by land being already cut off betwixt them. Here he alſo liſted thirty-eight volunteers that offered their ſervice.

That the 8th of Auguſt he left the ſaid place, and notwithſtanding the badneſs of the weather, rid acroſs the hills of Hegendos to the ſea-ſhore, where, meeting with the admiral, they went together up the river Sangado with the tide, as far as Calandaria, where they ſtayed for ſome time, and received the news, that in the laſt encounter betwixt Colonel Haus and the rebels near that hill, above two hundred of the laſt, among whom were ſome officers, were ſlain, and about forty or fifty on our ſide. One Melchior Alvares came on purpoſe to tell them, that about three hundred of the revolted inhabitants were inclined to accept of a pardon, which he referred to the council.

That being ready to take horſe in order to his return to the Receif, a certain ſoldier of our troops, that had been left behind, complained that he had been ſtripped ſtark naked by the ſervants of the ferryman of the river Sangado, who had wounded and beat him miſerably. Melchior Alvares was ordered to take care of his wounds, and Captain Piſtor to go with twenty of his men in queſt of theſe villains; who, coming to the ferry, beſet the houſe, took the ferryman and his three ſons priſoners, but the mulat, who had committed the fact, eſcaped their hands.

That he purſued his journey on horſeback towards the Receif, notwithſtanding the violent rains, and not without great danger paſſed the river the ſame night near the fort Emilia.

That on the 9th of Auguſt he was advertiſed by ſome negroes belonging to Moſes Navarre, whom he had ſent with letters to D'Ingenio Surſacque, that an ambuſh had been laid for them near Candalaria, but the enemy durſt not attack them, their negroes being all ſuch as were taken priſoners, and afterwards made their eſcape to us.

Major

Major Hoogſtraten ſent advice by his letters on the 13th of Auguſt, to the council, that the garriſon and volunteers of St. Antonio being ſafely arrived on the cape of St. Auſtin, they were now about two hundred and eighty ſtrong, viz. two hundred and ſeventeen ſoldiers and gunners, and ſixty-three volunteers. That immediately after our garriſon had left St. Antonio, Kamaron and Henry Dias had poſted themſelves with their troops in the ſugar-mill Algodais, near that place, where they expected to be joined by Martin Soare's and Andrew Vidal's forces, ſafely arrived from the Bahia. That he expected every day to be beſieged, and feared nothing ſo much as want of freſh water, the ſpring being cut off by the enemy. Hereupon immediate orders were given by the council to ſend thither thirty barrels of water, ſome ammunition and proviſion, and what elſe ſhould be requiſite for a vigorous defence of the place, which was ſufficiently provided before with ſoldiers. The next following day they received intelligence from Major Hoogſtraten, Mr. Ley, and Mr. Heck, that the enemy's troops had taken poſt in the ſugar-mill Salgado Zuviſiaque and other circumjacent places. The council relied much upon the bravery and fidelity of the officers within the fort, from whom they promiſed themſelves a very vigorous defence, they being all perſons who had advanced themſelves in their ſervices, and were in expectation of better preferments, viz. Major Hoogſtraten, Caſpar Vender Ley, formerly a captain of horſe, John Hick, and Albert Gerritſon Wedda, an old captain belonging to the company: but their unfaithfulneſs and covetous temper over-balanced all theſe conſiderations; for the ſaid Major Hoogſtraten, commander-in-chief, with the conſent of Caſpar Vander Ley, and Albert Gerritſon Wedda, treacherouſly and villainouſly ſold and ſurrendered the ſaid fort to the Portugueſe, the 23d of Auguſt, for the ſum of eighteen thouſand gilders, beſides ſome other rewards promiſed them upon that account. They went over with the whole garriſon to the enemy, who made Hoogſtraten colonel of a Dutch regiment, raiſed out of theſe and other ſoldiers of ſeveral nations, that had deſerted our ſervice. Thus this ſtrong hold was betrayed to the Portugueſe, by a perſon who owed his whole fortune to our company.

Martin Soares Moreno gave the following account of the ſurrender of this fort to the governor, Antonio Telles de Sylva, in his letter, dated from the hill of Nazareth, Auguſt 26, 1645;

A Letter to the Governor of the Bahia, concerning the taking of the Cape of Puntael.

"Sunday the 23d of this month, God Almighty, through his mercy, has put us into the poſſeſſion of the fort of the cape of Puntael, which was beſieged by Andrew Vidal de Negreiros: the next day we were rejoiced with the money ſent us by Your Lordſhip, and the wine preſented to me in particular, part of which I have beſtowed upon entertaining ſome of our friends, who are merry with me at this time.

"We have made an excellent bargain: for, beſides the importance of the place and its artillery, we have got the very flower of their ſoldiers; beſides that, this will be like a ſignal to the reſt to follow their footſteps.

"John Fernandes Vieira has raiſed, on Saturday laſt, the ſum of four thouſand ducats for our uſe, though not without force, but it was very welcome to us at this time, when we were upon ſtriking up the bargain for the better fortifying of this place, the harbour of which is not inferior to that of the Receif: but I will not trouble Your Lordſhip any longer with this point.

"Not long after the ſurrender of the fort, a bark appeared in ſight, ſent to its relief from the Receif. We ſent Captain Barreiros, with a well-armed bark, out

againſt her, who took her, with thirty-five men, and good ſtore of gun-powder and bullets, all which will prove very ſerviceable to us.

" I kindly deſire Your Lordſhip, that in caſe you ſend a meſſenger with this news to His Majeſty, Captain Damian de Lankois may be employed upon that errand, it being very probable that the King, beſides a good preſent, will reward him with ſome honourable employment.

" Laſt night we received advice, that the fleet under Jeronymo de Payva was entered the bay of Tamandare; I am ſorely afraid they will be attacked by the ſhips ſent thither from the Receif, notwithſtanding we have deſired him ſeveral times to come into our road.

" Kapivara is gone from that place by land to the Bahia, perhaps he has given him notice that we are maſters of the cape; if he thinks fit to bring his fleet to this place, he is ſafe, if not, it lies at his door. It is diſcourſed here, that the ſhip the Biſhop is miſſing, perhaps he has a fancy to convoy Salvador Korrea ſome part of the way.

" I cannot forbear to let Your Lordſhip know how much you ſtand indebted to Major Dieterick Hoogſtraten, and the reſt of the commanders of the fort. We have promiſed to the firſt a commandery of Chriſt. I beg of Your Lordſhip to make my promiſe good to him in His Majeſty's name, as ſoon as poſſible may be, he being a perſon who will be ready to do us all the further ſervice he can. We have, for the preſent, engaged him with ſome preſents of leſs moment, of which we ſhall give an account to you hereafter. Captain Vander Ley has likewiſe deſerved well of us, and ſo have all the reſt that had married Portugueſe women: it is reported here that he is a perſon of note in his country: we have likewiſe promiſed to him a commandery of Chriſt, and a yearly penſion for one of his ſons: we hope Your Lordſhip will not refuſe to make good our promiſe, becauſe his ſons are born of a Portugueſe woman: the name of the eldeſt being John, and the youngeſt Caſpar Vander Ley. The reſt are at preſent at their habitations, as ſoon as they return we muſt engage them with ſome promiſes, of which we will give an account to Your Lordſhip. They are all of conſequence to us, having married Portugueſe women. I hope Your Lordſhip will be well ſatisfied with this piece of ſervice, for John Fernandes Vieira ſometimes brings us more money in an hour than the conqueſt of the cape coſts us. He is at preſent in the Vergea among the barbarians, and we in the fort in the cape, till we have got every thing in readineſs. Kapivara is about three days ago gone by land, poſſibly he may be with you before the bark which carries this letter; I wiſh it may arrive in ſafety, and to Your Lordſhip a long life for the defence of this ſtate.

" (Signed) MARTIN SOARES MORENO."

Martin Soares Moreno and Andrew Vidal de Negreiros had in the meanwhile ſent ſeven or eight letters from the cape of St. Auſtin, dated the 23d, 30th, and 31ſt of Auguſt, and the 2d and 6th of September, in which they advertiſed the Admiral Payva, that they were in poſſeſſion of that cape, deſiring him by all means to come with his fleet into that harbour. The firſt of the two laſt letters was thus written:

Letter from the Portugueſe Commanders to Admiral Payva.

" My Lord,

" We are got now into the poſſeſſion of the harbour of Nazareth, and that, as the ſaying is, without caſting an anchor; which is the reaſon we intreat you likewiſe to

come with your fleet hither, where you may careen your ſhips, and provide yourſelves with freſh proviſions, men, ammunition, and all other neceſſaries, till ſuch time we ſhall mutually agree in what is further to be undertaken for the ſervice of God and His Majeſty. The enemy has hitherto but one ſhip of ſtrength at ſea, the reſt being of no conſequence; neither are they for engaging with you at this time, but endeavour to cut off your communication with the ſea-coaſt. My Lord, you have given ſo many proofs of your courage before this time, that this retreat will not abate any thing from the fame of your victories: on the other hand, you have to conſider, that you are anſwerable for ſo many thouſand lives of thoſe that are in your fleet; wherefore we deſire you once more to come hither with the fleet, and ſuch officers as are under your command, where you will meet with a very kind and comfortable reception. But being ſenſible that it would be a groſs error in us, to urge a matter ſo evident it itſelf any further, to ſo great a commander as you, we live in hopes of your coming, where we intend, in the houſe of Nazareth, to receive the bleſſed ſacrament, which name we have given to the fort, having, among other things, found a maſs-book here, which is of no ſmall ſervice to us. God preſerve Your Lordſhip.

" Puntael, Sept. 2, 1645. MARTIN SOARES MORENO, and ANDREW VIDAL DE NEGREIROS."

The contents of the ſecond letter to the ſame admiral are as follows:

" Your Lordſhip being already acquainted with our being maſters of the Puntael (cape), we hope you will take the firſt opportunity of coming to us; the enemies having two ſquadrons of ſhips at ſea, with one fire-ſhip, to force you from this coaſt, which has been diſcovered to us by a letter writ at the Receif, and directed to the governor, and taken by us in a bark deſigned for the relief of that place, of which we thought fit to give you immediate notice, that you might take your meaſures according to your wonted prudence. Theſe Dutch gentlemen have, by their treacherous dealings, obliged us to have recourſe to open force, and we deſire Your Lordſhip to repay them in their own coin, with fire and ſword, as they do us. If you deſign to come hither, it muſt be done ſpeedily, all delay being dangerous at this time. We have a true copy of this letter in our journal to ſerve for our juſtification hereafter. God preſerve Your Lordſhip.

" Dated in the Puntael of the Bleſſed " Sacrament, Sept. 6, 1645. MARTIN SOARES MORENO, and ANDREW VIDAL DE NEGREIROS."

An account of the ſurrender of the cape of St. Auſtin, and of the further tranſactions betwixt us and the Portugueſe, was ſent in a letter by Caſpar da Coſta d'Abreu, from the ſaid cape to his friend Domingos da Koſta, an inhabitant of the Bahia, which runs thus:

" I wiſh this letter may find you in good health, as I who am your faithful comrade deſire; I am in a tolerable good condition in the Puntael of Nazareth, which after a ſiege of twenty days was ſurrendered to us at an eaſy rate, becauſe thoſe who commanded within the fort, had Portugueſe wives, and their eſtates thereabouts. The captain of horſe was the moſt forward of all in ſurrendering the place; they have obtained what conditions they demanded, and a gratuity of four thouſand ducats beſides. We found in the fort three hundred Dutch, of their beſt troops, and twelve braſs pieces of cannon, four of which were four and twenty-pounders, and proviſions for three

three months; ſo that if they had not come with us to a compoſition, it would have coſt us abundance of men, whereas now we have gained the place with the loſs of one ſingle man, who was killed by a random cannon-ſhot. We made ourſelves maſters of a bark, firing from the Puntael, before its ſurrender, in which was a gentleman with ſeveral hundred men that were going to the Receif. This gentleman and another of Serenham (being both magiſtates in their reſpective places) we delivered up to the inhabitants, who ſoon killed them, notwithſtanding one was married with a Portugueſe woman; for they having been heard to ſay, that they hoped to waſh their hands in the blood of the Portugueſe, the women were ſo much exaſperated againſt them, that they ſoon diſpatched them according to their deſires. The priſoners are for the moſt part detained at St. Anthony, in order to be ſent to the Bahia; but many among them have taken ſervice with us. We ſuppoſe the number of the dead and Dutch priſoners amount to near thirteen hundred: we have not ſeen the ſquadron under Salvador Korrea de Saa; we are afraid ſome misfortune has befallen him; ſome of our ſhips were cruiſing hereabouts, but within theſe three or four days none of them have appeared on this coaſt. The Dutch have a fleet of twelve ſhips at ſea, it is well if they do not venture a bruſh with us. The Receif with all its forts are inveſted; Lawrence Karneiro is at Porto Calvo; the Jews report, that orders are come to take all the Dutch forces out of Rio Grande, Parayba, and St. Francis, in order to tranſport them to the Receif. There is no great harmony betwixt the Jews and Dutch, the firſt pretending that the others intend to ſell the country. Four of their head officers, which are our priſoners, are ordered to be ſent to the Bahia, and among them their maſter of the artillery. The ſame day that we were become maſters of the Puntael, a bark arrived there from the Receif with orders to keep it to the laſt extremity; we took the bark with good ſtore of ammunition and proviſion, worth in all about fifteen hundred ducats.

" Sept. 5, 1645. CASPAR DA COSTA D'ABREU."

From this and the following letters, it is apparent that Major Hoogſtraten had laid the foundation of his treacherous deſign of betraying the cape of St. Auſtin to the Portugueſe, long before; to wit, ever ſince he with Mr. Balthaſar Vander Voerde was ſent to the governor of the Bahia, Antonio Telles de Sylva. Thus a certain ſerjeant ſold a redoubt near the city of Olinda to the enemy for three hundred gilders.

At the beginning of the ſiege of the cape of St. Auſtin, Andrew Vidal de Negreiros ſent two letters to Major Hoogſtraten, Ley, and Heck, by one John Guomes de Mello, dated the 13th of Auguſt; in the firſt of which the ſaid Vidal complains of the ill-treatment and murthers committed upon the Portugueſe by the Dutch; in the ſecond he requeſts them to declare, purſuant to the promiſes made by Hoogſtraten in the Bahia, for the King of Portugal, and to deliver the fort into their hands.

Two letters from Vidal to Hoogſtraten.

The firſt was as follows:

" I am come this morning to the village of St. Antonio de Cabo, in hopes of receiving news from you and Captain Ley. I give by theſe preſents, notice to you, that we are ſent hither by order from the governor Antonio Telles de Sylva, with no other intention than to appeaſe the troubles lately ariſen in this country, purſuant to the requeſt of the council, of which you are a ſufficient witneſs. No ſooner were

we arrived at Tamandare, but we received many informations directly contrary to what we expected to meet with here; viz. that in Rio Grande thirty-ſeven inhabitants had been murthered, many virgins deflowered, and the image of the virgin Mary groſly miſuſed by the Dutch; things ſo abominable in themſelves, that it is ſcarce to be imagined ſo brave a nation ſhould be guilty of ſuch enormities. Whilſt I am writing this letter, news is brought me, that the Dutch have cauſed many of the inhabitants of Goyana to be murthered, though I can ſcarce give credit to it: for ſuppoſing this to be true, we could not avoid giving aſſiſtance to theſe miſerable people, though they were the moſt deſpiſeable of all nations, conſidering they crave our help, and are not only Chriſtians, but alſo ſubjects of the King our maſter, whom God preſerve. Whilſt the council was in expectation of the iſſues of the intended accommodation, they have ſurprized and killed many of the inhabitants, which obliges us to require you in the name of God, of His Majeſty, His Highneſs, and the States-General, not to give any occaſion for a rupture, but to maintain the late concluded peace to the utmoſt of your power, as we are ready on our ſide to concert all poſſible meaſures with the commander-in-chief of this place, which may tend to the tranquillity of both parties. The bearers hereof are Captain John Guomes de Mello, and Lieutenant Francis Guomes, who we deſire may be diſpatched back with all poſſible ſpeed. God preſerve you for many years.

" Auguſt 13, 1645. ANDREW VIDAL."

The ſecond letter was written thus:

The ſecond letter.

" Your promiſe made to us in the Bahia, and what has ſince been told by Captain Ley to John Fernandes Vieira and Captain John Guomes de Mello, encourages us to proceed in our former deſign, not queſtioning but that both you and Captain Ley will not in the leaſt recede from the engagement you have been pleaſed to oblige us with, and to tie us to your ſervice. We are come into this country at the head of three thouſand choſen men, backed by two ſquadrons of men of war well equipped, one of which has not as yet appeared on this coaſt, the other you have ſeen yourſelf paſs by the other day. I hope this may ſerve as a means to ſet the poor miſerable inhabitants at liberty; and as both they and we wiſh for nothing more than to ſee you embrace our ſide, that we not want an opportunity to give you more evident proofs of our reſpect and affection towards you, ſo we deſire you not to entertain the leaſt ſiniſter ſuſpicion of us; we being ready (for the performance of which we by theſe preſents give you our words) to accompliſh in every point, what has been promiſed to you, by John Fernandes Vieira and John Guomes de Mello. And I for my part aſſure you, that I will not fail to perform and agree to whatever you ſhall further demand upon this occaſion.

The inhabitants of this place ſhall be provided with paſſports, and protected by us, in the ſame manner as the commander of Serinham, Carpentier, and ſome others were; and we expect the ſame at your hand. And that you may be ſure whom to treat with upon this account, we have ſent to you John Guomes de Mello, who is intruſted with the whole matter; which if you refuſe to do, we muſt take ſuch meaſures as we ſhall judge moſt expedient for us. In the meanwhile God preſerve you for many years.

Your affectionate friend and ſervant,

" St. Ant. de Cabo, Aug. 13, 1645. ANDREW VIDAL DE NEGREIROS."

Major Hoogſtraten, Mr. Heck, and Ley, ſent an anſwer to this letter immediately, containing in ſubſtance, that they were not in the leaſt concerned in the outrages committed by the Tapoyers againſt the Portugueſe, and ſeemingly refuſed to treat with De Mello. It runs thus:

His anſwer to them.

" We have received your letter ſent by John Guomes de Mello, out of which we underſtand, that you are come to St. Antonio. We are extremely well ſatisfied, that the governor Antonio Telles de Sylva has undertaken to appeaſe the tumults ariſen in theſe parts, and do not queſtion but that your preſence will contribute much towards the accompliſhment of it. The affronts and outrages you ſpeak of by the Tapoyers and Dutch ſoldiers put upon the inhabitants, as they were committed ſorely againſt our will, ſo I can aſſure you, that nobody, not ſo much as the leaſt child, has been ſuffered to be miſuſed upon our accounts, ſo that theſe complaints muſt not be made to us, but ought to be referred to the council. The treaty you propoſe with Captain John Guomes de Mello, and Lieutenant Francis Guomes, is beyond our province and power, ſo that we earneſtly deſire you not to uſe any further ſolicitations to us upon that account. So we kiſs your hands, recommending you to God's protection. We reſt

" Your ſervants and good friends,

CASPER VANDER LEY.
D. VAN HOOGSTRATEN.
JOHN HECK.

Major Hoogſtraten took care to ſend theſe two letters, together with their anſwer, to the council, with repeated aſſurances of their conſtant fidelity; whereupon the great council confirmed Hoogſtraten in his government, and exhorted Ley and Heck to perſevere in their brave reſolution, which they would in due time take care to reward with better preferments. This diſcovery of the enemy's letters being looked upon as an undeniable proof of Mr. Hoogſtraten's ſincere intentions, had ſuch an influence upon the generality of the people, that there was ſcarce any body but what thought himſelf ſecure of his fidelity and duty. Nevertheleſs, as theſe temptations could not but raiſe ſome jealouſy in the minds of the council, they thought fit to ſend Colonel Haus to the Receif, to order him to the Cape of St. Auſtin.

The council in the meanwhile being, by Vidal's letters to Hoogſtraten, ſufficiently convinced, that the intended recalling of the rebellious troops were nothing but amuſements, ſent immediate orders to their admiral Lichthart, that, for the future, he ſhould treat all the Portugueſe ſhips he could meet with as enemies.

The 15th of Auguſt, Colonel Haus being come to the Receif, propoſed to the council, that he judged it abſolutely neceſſary for the ſervice of the ſtate, that ſince by the ſuccours come from the Bahia to the aſſiſtance of the rebels under Martin Soares Moreno and Andrew Vidal, they were grown very ſtrong and numerous, the troops encamped in the field ſhould be drawn into the Receif, becauſe they being, beſides the Brazilians, not above three hundred ſtrong, they might eaſily be cut off in a place where they could not be ſeconded in the Receif, where they were wanting for the defence of that place, which being the capital of the whole Dutch Brazil, would, in all likelihood, be attacked with the utmoſt vigour by the enemy.

Againſt this opinion many reaſons were alleged too.

I. By

I. By ſo doing, they muſt quit all the open country from whence they were now ſupplied with cattle and meal, which they ſtood highly in need of, till ſuch time that they could receive new ſupplies from Holland, and that, in ſuch a caſe, they muſt expect the enemy immediately at their gates.

II. That thereby the number of the enemy would be increaſed; the inhabitants of the country, being freed from the dread of our troops, would join with them againſt us.

III. That by ſo doing, we muſt leave the Tapoyers, that had taken up arms at our requeſt, and were to be joined by our troops near Machiape or St. Antonio, to the enemy's mercy. To this, it was anſwered,

1ſt, That as to the ſupplies of cattle and meal from the country, they ſhould be in a much better condition to be furniſhed withal when their forces could be ſent aboard into all circumjacent parts of the country, whereas now they were forced to remain in one certain place. Beſides that, we being maſters at ſea, might embark at any time a certain number of men, and land them where we found it moſt convenient, which would oblige the enemy, inſtead of beſieging the Receif, to divide his forces, for the defence of the country. What related to the increaſe of the enemy's forces, by the acceſſion of the Portugueſe inhabitants of the country, was to be looked upon as of no great conſequence againſt us; it being more for our intereſt to ſee them appear as declared enemies than diſſembling friends; it being generally known, that their inclinations were bent for their countrymen, and that, notwithſtanding all their ſpecious pretences, they miſſed no opportunity of giving intelligence to the enemy of what paſſed among us; whereas, if they were once declared enemies of the ſtates, we ſhould have a fair opportunity of ſeizing upon their cattle, proviſions, and other moveables, for the uſe of the Receif; which being thus provided, would diſcourage the enemy from attempting to reduce it by famine.

What was alledged concerning the danger of the Tapoyers, was acknowledged to be of no ſmall moment; but, conſidering they had received no news as yet of their motion, it was not judged of ſuch vaſt conſequence, as to be put in balance with the welfare of the whole Dutch Brazil, which depended in a great meaſure on the ſafety of theſe troops.

After mature deliberation of the whole matter, it was reſolved, on the 15th of Auguſt, by the council, with the approbation of the members of the court of juſtice, that, conſidering the danger the troops were expoſed to, and that on their ſafety depended the preſervation of the Receif, they ſhould with all poſſible ſpeed march thither, and that only fifty men ſhould be left in the houſe of De Wit, under Captain Wiltſchut, in order to command ſome part of the circumjacent country, and to ſerve as a retreat for our parties that ſhould be ſent abroad to fetch in cattle, and farinha or meal.

Purſuant to this reſolution, Colonel Haus went thither on horſeback the ſame day, to put it in execution the ſame evening, if poſſible he could, or, at fartheſt, the next morning. But it ſeems Colonel Haus was ſo neglectful, as to delay the march of theſe troops not only that afternoon, but alſo the whole next following day; and, inſtead of retreating towards the Receif, tarried in the ſame ſugar-mill, without having the leaſt intelligence of the enemy's approach; ſo that on the 17th of Auguſt, being ſurpriſed by the troops of Andrew Vidal, much more numerous than his, before they could betake themſelves to their arms they were put to the rout. The council being advertiſed, that Colonel Haus with his troops were attacked by the enemy in the ſugar-mill of M. de Wit, they called the city militia to their arms; Mr. Bulleſtraet and De Bas went to the houſe of Baviſta; from whence, as being nearer at hand, they might give the neceſſary orders, according as they ſhould receive advice from Haus: and twelve fire-locks

were poſted in this houſe for the better ſecurity of the bridge acroſs the river. Dieterick Hamel, and the counſellors of juſtice, took care to look after the Receif. Immediately after, word being brought to the council that Colonel Haus had been overthrown, and was retired to the houſe of De Wit belonging to the ſugar-mill, it was conſulted, whether by any means they might be able to relieve him; and, though by reaſon of the weakneſs of the garriſon, it was no eaſy matter to do it, nevertheleſs, it was reſolved, with one hundred volunteers of the inhabitants, and one hundred and fifty ſoldiers, to attempt his relief. But before this could be put in execution, a certain Brazilian that had been preſent at the whole action, and having, by changing his clothes with a Portugueſe, found means to eſcape the Receif, brought the unwelcome news, that Colonel Haus, with the forces under his command, had ſurrendered the houſe belonging to the ſugar-mill, and themſelves, upon promiſe of quarters, at diſcretion.

It was generally believed, that this misfortune was chiefly occaſioned by Colonel Haus's own neglect, who did not, till it was too late, put the ſoldiers into a poſture of defence, which was afterwards confirmed by the depoſition of William Jacobſon, late captain-lieutenant of Colonel Haus's own company, made before the great council the 6th of July, 1646.

It was not till the night before our defeat, that Colonel Haus received the firſt intelligences from a priſoner, a negro, that the enemy, with a ſtrong body, were broken up from Moribeca. The next morning, one of our ſafe-guards brought word to the colonel, that the enemy was paſſing the river; and ſoon after, the colonel's groom, who had been to water his maſter's horſe in the ſaid river, came in a full gallop, telling him likewiſe, that the rebels were paſſing the river, ſo that we ſoon after heard them fire upon our advanced guard, who retired immediately to the main body. Colonel Haus did not call the ſoldiers to their arms, or cauſed the alarm to be given, until the enemy came within ſight of us, and charging our out-guard, when we firſt began to ſkirmiſh with them: but they charging us with their more numerous forces in the front, whilſt Kamaron with his troops endeavoured to cut off our retreat to the Receif, which we were not able to prevent, by reaſon of the ſmallneſs of our number, Haus aſked Captain Wiltſchut, Blaar and Liſtry, "What was beſt to be done?" Wiltſchut anſwered, "You never aſked our advice before, do what you think beſt." Whereupon Haus ordered to retreat to the houſe of Mr. de Wit: Captain Blaar, who expected no quarter, being on the other hand for fighting our way through to the Receif. The houſe was bravely defended for four hours, but at laſt powder and ball beginning to fail, becauſe half a barrel of gunpowder (which was all they had left) blew up by accident, they ſurrendered at diſcretion to Andrew Vidal, under condition to have their lives ſaved, as well for themſelves as the Brazilians among them; which agreement being ſigned by Vidal, and two or three more of the chief commanders of the Portugueſe, was delivered to Colonel Haus. Notwithſtanding which, the Brazilians were cut to pieces by the inhabitants, with the conſent of the Portugueſe commanders, as ſoon as we had quitted our poſt in the houſe. The Brazilian women ſeeing their huſbands murdered before their faces, daſhed moſt of their children's brains againſt the walls, for fear they ſhould fall alive into the hands of the Portugueſe. All the Dutch, about two hundred and fifty ſtrong, among whom were Colonel Haus, Captain Blaar and Liſtry, were made priſoners of war, and were for the firſt four or five days kept in the ſugar-mill of Hacq, when John Fernandes Vieira, and many of the inhabitants ſolicited Andrew Vidal, to deliver the ſaid priſoners up into their hands, with an intention to kill them, but Vidal refuſed to grant their requeſt, and cauſed them forthwith to be ſent by

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land to the Bahia: they were indifferently well treated in their journey thither; but ſuch as either by reaſon of ſickneſs, or any other accident, were left behind, fell into the inhabitants' hands, who cut them to pieces, and would have done the ſame with all the reſt, had it not been for their convoy. After their arrival in the Bahia, an account being taken of their names, they had certain quarters aſſigned them, and thirty-one pence halfpenny per week for their pay, and a meaſure of meal for every ten days.

They had liberty to walk up and down within the city where they pleaſed, except Colonel Haus, Captain Wiltſchut, and Liſtry, who were confined to their lodgings, and durſt not, without ſpecial leave, talk with anybody. Colonel Haus was at laſt ſent to Portugal, and Wiltſchut and Liſtry, in June 1647, put on board a ſhip with two hundred and thirty Dutch priſoners; about ſixty of our men took ſervice among them there, but they refuſed the natives of Holland.

The enemies being greatly encouraged by theſe ſucceſſes, and their ſtrength increaſing daily by the great concourſe of the Portugueſe inhabitants, who in the captainſhips of Parayba and Goyana, which hitherto had remained in quiet, and engaged themſelves to the government by a new oath of allegiance, now alſo took up arms againſt us; ſo that it was thought convenient to recall our garriſons out of thoſe parts.

But to return to the cape of St. Auſtin, after the ſurrender of which the garriſon was carried to St. Antonio, where they were forced to deliver up their arms. Among the reſt of our priſoners there was Iſaac Zweers, afterwards vice-admiral of Holland and Weſtfriſeland, Abraham Van Millingen, and John Broekhuſen; both ſtill living in Holland. Major Hoogſtraten addreſſed himſelf to them, endeavouring to bring them over to the Portugueſe ſide, by the allurements of captain, lieutenant, and enſign's places, telling them, that it would now be in his power to promote them to much higher employments; but when he ſaw them refuſe his offer, he ſwore they ſhould repent it. At the ſame time he preferred three Dutch men, to wit, Winſel Smith, formerly his lieutenant; Alexander Boucholt, and Claes Claeſen, a native of Amſterdam, to captains places; the laſt of theſe three being an intimate friend of Zweers and Broekhuſen, told them, and confirmed it by many oaths, that he had taken ſervice among them for no other end, than to get an opportunity of returning to us. They had alſo liberty given them to walk abroad, but not without a guard to keep a watchful eye over all their actions.

Not long after, the Portugueſe provider, Mor, ſent for John Broekhuſen, and after the firſt compliments were paſſed, told him, that if he would ſerve the King of Portugal in the quality of commiſſary-general, he ſhould go along with him to the camp, where he ſhould receive one hundred gilders per month, and be welcome to his table beſides; and that if he refuſed his offer, and ſtayed behind, he would be in danger of being murdered by the inhabitants. He replied, that being engaged by his oath to the company he could not break it, though with the hazard of his life. "And," ſaid the provider, "will you chooſe rather to ſerve a company of mob than a King? We are juſt now upon the point of executing a deſign which is infallible, and then you will begin to ſee that the King's cauſe is the juſteſt, and will be crowned with ſucceſs for ever." Then he gave him a cup with brandy, of which after Mr. Broekhuſen had taken a good draught, he took his leave and returned to his comrades, unto whom he gave an account of what had paſſed betwixt them.

Theſe had in the meanwhile been informed by ſome Portugueſe, that this deſign was upon the iſle Itamarika, and being certain that the council did not foreſee this danger, they were contriving all poſſible means to give them notice of it, but could not

pitch upon any perſon fitly qualified for this undertaking. At laſt, Iſaac Zweers, by vaſt promiſes of reward, prevailed ſo far upon a Dutch trumpeter, called Martin Stomp, that he undertook to carry this piece of news in perſon to the council, and at the ſame time to requeſt the releaſing of the Dutch priſoners ſtill remaining at St. Antonio. Every thing being agreed upon betwixt them, the trumpeter took his leave of Mr. Zweers, and ſet out on his journey to the Receif about midnight, leaving his wife and children behind him. Mr. Zweers and Mr. Broekhuſen appeared very well ſatisfied, but nevertheleſs were in their hearts not a little concerned for the iſſue of this enterpriſe.

They would often call upon the trumpeter's wife to enjoin her ſilence, and ordered her, that if any enquired after him, to tell them he was run away from her, in order to take ſervice in the camp in the Vergea.

Some days after they met with one Peter Ritſau, formerly baker to the garriſon of the cape of St. Auſtin; Broekhuſen having a mind to feel his pulſe, and finding him not averſe to ſuch a taſk, he at laſt with fair words prevailed upon him to undertake the ſame journey the trumpeter had done before; that in caſe he ſhould miſcarry, which they much feared he might, the council might nevertheleſs be advertiſed of the enemy's intended expedition againſt Itamarika. The baker having deſired a certificate from them, teſtifying, that he never had taken ſervice among the Portugueſe, prepared himſelf for his journey, which he intended to begin with the firſt dark night.

The ſame night they were forewarned of a deſign againſt their lives, by a certain Italian called Jacomo da Perugalho, ſo that Zweers and Broekhuſen gueſſing, not without reaſon, that ſome of the Portugueſe had got ſcent of their ſending away the trumpeter and baker, thought it not adviſeable to ſtay longer in this place, but to aſk leave from Colonel Pedro Marinho Falkaho, to go to the Algodais, where they could not want conveniency to go along with the reſt of the priſoners, that were intended to be ſent to the Bahia, which was readily granted.

In the meanwhile the baker having taken the firſt opportunity to ſet out on his journey, was met by two Portugueſe in the ſugar-mill Trapicha, who having found the before-mentioned certificate about him, carried him priſoner to St. Antonio de Cabo, where being put to the torture, it made ſuch a noiſe among the inhabitants, that they all roſe up in arms, proteſting, they would not be ſatisfied till they had fetched Zweers and Broekhuſen from the Algodais, and cut them to pieces; for which purpoſe they alſo obtained ſeven ſoldiers from Pedro Marinho, and had certainly put it in execution if Captain Ley had not oppoſed it; for, as good luck would have it, they happened at that time to be in his ſugar-mill, and the baker had ſtood it out bravely, without diſcovering the matter. The next morning Captain Ley gave them a viſit, telling them what had happened; and ſays he to Broekhuſen, "What is your meaning by this?" But he having no great confidence in Ley, denied every thing to the utmoſt.

But the 2d of October, the whole deſign was likely to have been diſcovered by the imprudence of the before-mentioned trumpeter's wife, who being got drunk, told ſome of her acquaintance, that her huſband was gone to the Receif. She was carried a priſoner to the cape of St. Auſtin, where ſhe was miſerably tortured, but being a reſolute woman, would not confeſs any thing: it was however Major Hoogſtraten's advice, that the Portugueſe ought not to keep the Dutch any longer in Pernambuko, but that all ſuch as refuſed to take ſervice among them, ought to be ſent to the Bahia. Accordingly, all the Dutch priſoners then about the cape and St. Anthony, were ſent to the Algodais, where every one was aſked by Colonel Peter Marinho, whether they

would take ſervice under the King of Portugal, and that ſuch as would not, ſhould be ſent forthwith by land to the Bahia, a tedious journey; beſides, that they ran the hazard of being murdered by the way. Many took ſervice for fear, but Zweers and Broekhuſen being aſked again, whether they were not willing to ſerve the King, they anſwered, they would rather die than bear arms againſt their own nation.

The 5th of October, all the priſoners under a convoy, both of ſoldiers and boors, were carried from the Algodais to Pojuka. But ſcarce were they come thither, when Zweers was ordered to be ſent back to the cape of St. Auſtin, where he was put to the rack, to extort from him a confeſſion concerning the trumpeter's journey to the Receif, who, as they ſuppoſed, had diſcovered their deſign upon Itamarika; but not being able to bring him to make the leaſt diſcovery, they ſent him, after an impriſonment of five weeks, to the Bahia.

In the meanwhile Mr. Broekhuſen, with the reſt of the Dutch priſoners, had been forced to travel day and night till the 28th of November 1645, when they came to a caſtle called Tapuao, on the ſea-ſhore of the Bahia, about half a league from the city of St. Salvador, after a dangerous journey: they were carried in ten boats to the city, on that ſide where it is beſt fortified, the Portugueſe being not willing to let them have a ſight of the fortifications on the land ſide. Mr. Broekhuſen was by order from the governor Antonio Telles de Sylva, made a priſoner in a citizen's houſe, and the ſoldiers diſpoſed into quarters. The next day they heard the drums beat up for volunteers, every one being invited to ſerve the King of Portugal, of what nation ſoever, except the Dutch.

The next following year, on the 18th of January 1646, Zweers and Broekhuſen intercepted a letter written by Hoogſtraten to Hondius, concerning ſeveral tranſactions to be communicated to the governors, of which Captain Ley having got ſcent, gave immediate notice thereof to the governor, the 1ſt of February, who threatening them with no leſs than the gallows, ſent them to a loathſome priſon; with ſtrict orders that nobody ſhould be permitted to ſpeak with them, nor that pen, ink, or paper, ſhould be allowed them; nay, whilſt the clerk was ſetting down their names, a captain came and told them from the governor, that they were the traitors who kept correſpondence with the Dutch in the Receif; and ordered that a centinel ſhould be ſet at the priſon door, to keep the inhabitants from laying violent hands upon them; for as they were carrying to priſon, they made a horrible noiſe, crying, "To the gallows with theſe impoſtors and traitors." They remained five whole days in this priſon without any victuals or drink, till being almoſt ſpent with hunger and thirſt, they got leave to write to the governor, repreſenting to him their deplorable condition; who gave immediate orders that victuals ſhould be given them for the future: the Portugueſe keeper being afraid, that if they ſhould give them plenty of victuals at firſt, it might turn to the danger of their lives, was ſo cautious, as to ſend them no more than each a piece of bread well dipt in wine at firſt, and after ſome hours, ſuch another, but ſomething bigger, till by degrees their ſtomachs were reſtored to their former digeſtive faculty.

The laſt day of February the governor gave public audience (which is done three times every year) for the releaſing of thoſe that are priſoners on the King's account. Upon this occaſion, a free acceſs was likewiſe granted to our people to the governor. They paſſed through the anti-chamber, lined on both ſides with his guards, into the room of audience, adorned with damaſk hangings of divers colours: here they found the governor ſitting in an elbow-chair, on the right ſide of which ſtood the royal throne, raiſed four ſteps higher from the ground than the governor's ſeat, which was ſurround-

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ed upon the floor with very fine tapeſtry. Juſt behind him ſtood his ſecretary, and ſome halbardiers; on both ſides ſat ſeveral counſellors and lawyers, their heads covered, and behind them the officers of the army, all uncovered. The governor, as ſoon as he ſaw our priſoners, gave them a ſign to come nearer, which they having done accordingly, Mr. Broekhuſen, upon his knees, ſpoke to him thus:—"We ſuppoſe Your Lordſhip not to be ignorant, that now for a whole month we have been detained in a miſerable priſon, without being conſcious of any crime committed againſt you, unleſs it were, that we have detained the letter Your Lordſhip knows of; if, in this, we have committed a fault, we beg Your Lordſhip's pardon."

"And," replied the governor, "ſuppoſing you had done ſuch a thing in Holland?" Upon which, Broekhuſen anſwered, "That His Lordſhip would be pleaſed to remember, that it was no more than a private letter, and not directed to His Lordſhip." The governor, after having pauſed for a little while, gave immediate order for their diſcharge; from that time they had liberty given them of walking abroad, but were fain to carry themſelves very ſwimmingly, for fear of the inhabitants, who kept a watchful eye over them.

The 7th of May, Iſaac Zweers and John Broekhuſen were carried on board a yacht called the St. Francis, in order to be conveyed to the Iſle of Terceira; and as they were the firſt Dutch priſoners that were ſent to that iſland, every one looked upon it no otherwiſe than a pretence to throw them over-board after they were come to ſea. Here they met with worſe treatment than before, being forced to ſtand to the pump during the whole voyage, and yet were ready to be ſtarved, notwithſtanding the ſeamen catched more fiſh than they could conſume. At laſt, the 28th, being arrived in the road near Terceira, they ſaw within an hour after, a Dutch ſhip coming to anchor near them; they called to the ſhip till the maſter ſent ſome of his people aboard them, unto whom they made their complaints; and, underſtanding that the maſter was a native of Niewendam, called Martin Peter Honing, they began to be a little cheerful, though the Portugueſe would not allow them to go aboard the Dutch ſhip. But the 29th, being left alone with the ſteer-man, and only one boy in the veſſel, they found means to go in ſpite of their keepers aboard Martin Peter Honing, who promiſed to ſee them delivered. The ſame afternoon, Moor, the governor of this and the adjacent iſlands, reſiding in Terceira, ſent for Zweers and Broekhuſen, and told them that he had received a letter from the governor Antonio Telles de Sylva, in which he had deſired him to detain them priſoners in the caſtle for a twelve-month; but that he did not think himſelf obliged to follow his directions, he having no other dependance but on the King, who being not concerned in this war, his orders were, to ſend all the priſoners brought thither to Portugal; that they might rely upon it; and, for their preſent ſuſtenance, till a ſhip ſhould be ready to go, ordered them nine rix-dollars.

The 13th of June, they met with a maſter of a French veſſel, who offered to carry them, without any reward, to Portugal, which they willingly accepted of: here they met with many of their fellow-priſoners, who had imagined no otherwiſe, but that the Portugueſe had thrown them over-board. They continued here till the 10th of September, when Zweers and Broekhuſen embarked themſelves at Liſbon aboard a man of war, called the Prince Henry, and at laſt, the 4th of December, after a thouſand dangers and miſeries, which they had ſuſtained ſince their departure from the Dutch Brazil, arrived ſafely in the Maeſe.

But we muſt return towards the Receif. The unexpected defeat of Colonel Haus put all the inhabitants of the Receif under great conſternation; but the council left no ſtone unturned to put the place, with all the adjacent forts, in a condition to make

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a vigorous defence, in caſe it ſhould be attacked by the enemy; and, that every thing might be performed with the beſt order that could be, Peter Bas was conſtituted commander-in-chief in the Receif. Admiral Lichthart was to take care of the batteries and artillery thereunto belonging; Henry Moucheron was made commander in Maurice's Town; all their thoughts being now bent upon the defence of theſe places, which before they judged out of danger.

The ſtables and out-houſes for the uſe of the negroes, as likewiſe the walks and gardens belonging to Count Maurice's houſe, being no ſmall impediment to the fort Erneſtus, it being to be feared that, under favour of theſe houſes and trees, the enemy might unexpectedly ſurpriſe the fort and Maurice's Town; and the inhabitants earneſtly requeſted the pulling down of thoſe ſtables, out-houſes, and trees, and what elſe might prove dangerous to the place; orders were given to Mr. Valbergen and Major Bayert, commanding in the fort Erneſtus, to ſee the ſame put in execution, with as little damage to the houſe as poſſibly could be. The houſes near the fort Bruin were likewiſe ordered to be pulled down, and the horn-work belonging to it, to be levelled at the requeſt of the citizens. Many negroes were alſo employed under the conduct of Major Beck and the captain of the city-militia, to break down all the houſes in Maurice's Town, which lay too near the retrenchments. All Portugueſe priſoners were ordered to be diſtributed in the ſhips; and ſeveral volunteers, who had committed many outrages in the country, and were detained in cuſtody, were taken into ſervice for three months. A rumour being ſpread abroad that eighteen of the enemy were come into the Affagados, a company of citizens were got in readineſs to aſſiſt them, but it proved not true.

The ſame day, the ſhip called the Orange-tree, arrived near the Receif, being come out of the Maeſe the 21ſt of May with thirty-five ſoldiers for recruits. The watches were ſo diſpoſed, that in Maurice's Town Mr. de Wit and Raetfield (beſides the ordinary officers), and in the Receif, Mr. Aldrich and Valbergen, ſhould go the rounds.

Balthaſar Dortmund, governor of Itamarika, ſent advice to the council the 17th of Auguſt, that Kavalkanti was with ſome troops come to Iguaraku, and had ſummoned the Brazilians to join with him in four days, under forfeiture of their lives.

The 19th, the citizens preſented a petition, ſhewing the neceſſity of having the houſe of Count Maurice pulled down, as hindering the proſpect from the fort Erneſtus, and, if once poſſeſſed by the enemy, they might from thence annoy both the fort and the Receif itſelf with their cannon. But the council having adviſed with Mr. Walbeck, Admiral Tichthart, Aldrich, De Wit, Raetfield, Moucheron, and Valbergen, thought fit not to agree to it for that time, being in hopes that it might be made uſeful for their defence. Mr. de Wit and Hamel were commanded to go from hence to each houſe in Maurice's Town, and to take an exact account of what negroes were able to bear arms, and to furniſh them with muſkets and pikes; the ſame charge was given to Admiral Lichthart and Captain Bartholomew Van Collen, for the Receif. [redacted]e ſick that were in a ſtate of reconvaleſcency in the caſtle were likewiſe ordered [redacted]armed for its defence.

At the ſame time, an anſwer was ſent to Mr. Dortmund, with orders to draw as many Brazilians as poſſibly he could into the iſle of Itamarika, and to provide himſelf with as much cattle and meal (farinha) as he was able to get out of the adjacent places; but that if he found himſelf not in a condition to maintain the whole iſland, or the city of Schoppe, he ſhould retire into the fort Orange, where he might be ſupplied by ſea, and, conſequently, make a vigorous defence. Mr. Carpentier was likewiſe forwarned

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to be upon his guard, and to retire in time into the iſle of Itamarika, with his ſoldiers and Brazilians, if he found the inhabitants ready to take up arms againſt him.

The 19th, at night, a party went abroad to get intelligence, but met with no enemy. Some negroes were alſo ſent towards the enemy's quarters to know their ſtrength. The ſame evening the council received a letter by Lieutenant Francis Meades from Andrew Vidal, in which he profeſſed his readineſs ſtill to maintain the peace, complaining, at the ſame time, of outrages committed by our ſoldiers, as may be ſeen out of the following letter:—

A Letter from Vidal to the Council.

"We have ſent you advice before by Lieutenant Manuel Antonio, of our arrival in this captainſhip, by ordere from the governor Antonio Telles de Sylva, and at your own requeſt, in order to reſtore tranquillity here by the moſt effectual means we could deviſe. We alſo did repreſent to Your Lordſhips the many innovations and unaccountable proceedings which had reached our ears, by the lamentable cries of ſeveral noble raviſhed virgins, and the doleful complaints of the inhabitants of Rio Grande, where forty perſons of note, together with a prieſt, and the other day two more in the Salinas, were murdered in cool blood. I can ſcarce mention without horror (and the reſpect every one ought to have to ſacred places forbids me to particularize) the outrages committed againſt the images of ſaints, and eſpecially that of the mother of God, and ſacrileges committed by your ſoldiers: all which conſiderations, together with that we found you in a warlike condition, with your troops in the field, natural right of ſelf-defence eſtabliſhed by the conſtant cuſtom of war did teach us, not to leave an armed power behind our backs, which upon occaſion might have proved fatal to us before we could come to a reſolution in conjunction with Your Lordſhips, what meaſures were beſt to be taken for the re-eſtabliſhment of that tranquillity, which was the only aim of our coming into theſe parts; according to which we have regulated ourſelves in our march towards the Receif, till we come to the town of St. Antonio de Cabo; where, having cauſed John Fernandes Vieira to be taken into cuſtody, under a guard of twelve ſoldiers, we were ſurpriſed at the vaſt numbers of inhabitants, children, women, and religious men, who, to ſhelter themſelves from the outrages and robberies committed againſt them by Captain Blaar in the Vergea, came to ſeek for ſhelter among us. They gave us an account how that the ſaid captain, not ſatisfied with having plundered their houſes, had carried away three of the nobleſt ladies of the country, after they had been grievouſly diſgraced before; the inhabitants, being exaſperated by theſe violences, did, againſt our will, leave our camp ſo ſuddenly, that whatever haſte we made to march after them, we could not overtake them before they were engaged with ſome of your troops, in the ſugar-mill of Iſabel Gonſalves, which they intended to have ſet on fire, had it not been [illegible] our men, who were forced to interpoſe betwixt them and your ſoldiers, to the [illegible] ſmall danger and our loſs, as being expoſed to the volleys of your ſmall ſhot, [illegible]ch conſiſted for the moſt part of bullets cut in pieces and made four ſquare. As the hoſtilities committed daily againſt our troops afford freſh occaſion of revolt among the inhabitants, ſo we cannot but lay before Your Lordſhips the late proclamation and ratification of peace betwixt us, proteſting now and for ever, in the name of God, John IV. our King, as alſo in the name of the States-General, and all our allies, that Your Lordſhips will not let things come to a rupture, and not give us new cauſe of acting offenſively, or to declare war againſt you. We cannot longer diſſemble our opinion, that the reiterated complaints of the inhabitants may, at leaſt in ſome meaſure,

ſure, ſerve for an excuſe, if not a juſtification, of the proceedings of John Fernandes Vieira, concerning whom we are ſufficiently ſatisfied that his firſt intentions were only to afford protection to ſome innocent perſons threatened with deſtruction; which though it was in his power to do, yet did he retire from place to place with his forces, in hopes of avoiding any engagement, till forced thereunto by neceſſity, he was conſtrained to repel force by force. We beg of Your Lordſhips to take this letter into ſerious conſideration, being of ſo much conſequence to our both ſides ſafeties; for it ſeems as if Heaven itſelf were offended at our proceedings. God preſerve Your Lordſhips.

" From De Ingenio of St. John Baptiſt
" de Venies, Aug. 19, 1645. ANDREW VIDAL DE NEGREIROS."

An anſwer from the council was ſent the next following day by the ſame lieutenant:

The Council's Anſwer.

" Out of our anſwer to your letter, dated at Serinham, the 8th of Auguſt, you may ſufficiently ſee that the proteſtations made, both by the governor, Antonio Telles de Sylva, and by yourſelf, concerning the maintaining of the peace betwixt His Majeſty of Portugal and the ſtates-general of the United Provinces, were never looked upon by us as ſincere, or to be relied upon, ſince your actions did in no wiſe agree with your words. The treacherous propoſals made to one of our deputies, to betray one of our beſt ſtrong holds into your hands; the landing of ſo formidable a force in our territories without any knowledge, under pretence of a miſinterpreted ſenſe of our letter to His Excellency; the coming with a ſtrong fleet into our road; the taking of the fort of Serinham; the ſlaughter of ſo many Brazilians, our ſubjects, in cool blood; the ſummons ſent to the Cape of St. Auſtin for a ſurrender; nay, the attacking and ſurpriſing of our troops, who were forced to keep in the field, for the bridling of our rebellious inhabitants; all theſe, we ſay, cannot by any unbiaſſed perſons be looked upon otherwiſe than manifeſt infractions of the ſaid treaty, and open hoſtilities. We on our ſide can, without the leaſt contradiction to truth, poſitively declare, that our armament was not in the leaſt intended againſt His Majeſty of Portugal, but againſt the rebels and their adherents; which we were compelled to, when we ſaw many armed troops to penetrate into our territories croſs the river St. Franciſco. The ſurpriſing of ſome of our barks in the Salgados; the taking of the houſe Marecape, and making our ſafeguards priſoners there, as well as at Cambao, and ſeveral other places; the gallows that were erected on purpoſe to terrify our inhabitants into a compliance with the revolted party; the killing of three of the ſaid inhabitants of Pojuka in cool blood, and the ſurpriſing of ſeveral of our ſoldiers and Brazilians ſent to St. Lawrence to fetch farinha; the plundering of the houſes and ſhops of ſeveral tradeſmen in the country, with many ſuch-like violences committed by the revolted party; and what is the worſt, before ever we appeared in arms, but endeavoured, by proclamations of pardon and maintaining them in their poſſeſſions, to divert the danger; all theſe actions, we ſay, will not admit of any other interpretation but of open hoſtilities.

" How can it be ſuppoſed that in the ſtation we are, we could, after all thoſe provocations and ſlights of our kind offers, deſiſt any longer from drawing the ſword? Whatever, in the mean-time, has been tranſacted contrary to the cuſtom of war, has been done without our knowledge and intention; being occaſioned by the treacherous dealings of the rebels, and conſequently to be looked upon as deſerved puniſhments, rather than the conſequences of a juſt war; beſides, that neither His Excellency Antonio Telles de Sylva, neither you nor any body elſe, has any legal power to call us to an account con-

cerning the government or puniſhment of the ſubjects of the States-General, no more than the King of Portugal is anſwerable to us for what is tranſacted upon that account in his kingdom or other dominions.

" Notwithſtanding which, we would have you not in the leaſt lay the before-mentioned crimes and violences at our door; we are ſo far from having encouraged or commanded the Tapoyers to kill the Portugueſe inhabitants in Kunhao, that for theſe ſeveral years laſt paſt we have endeavoured to prevent it; for having, by the ill treatment they had received from the Portugueſe, been exaſperated againſt them, they were for killing moſt of the inhabitants of that captainſhip, and had actually put it in execution, had we not interpoſed our authority, and ordered our garriſons to take them into their particular protection. What you ſay of raviſhing of women, is not only beyond our knowledge, but even beyond whatever we heard of before, having taken all imaginable care to prevent ſuch violences by our proclamation, publiſhed for that purpoſe. It is known to all the world that we afforded our peculiar protection to the women of De Ingenio, of St. Arnout d'Orlanda, and what concerns the taking of the ladies by Captain John Blaar, was, as we are informed, done with no other intention, than to exchange them for his wife, or at leaſt to keep them as hoſtages for her, he having received intelligence that ſhe was very ill treated by you at Serinham. The rebels themſelves made the firſt ſtep towards thoſe robberies and rapines that have been committed by our ſoldiers ſince, which, however, cannot come into balance with thoſe cheats, frauds, and rapines, wherewith thoſe rebels have defrauded and robbed their creditors of their debts and goods; notwithſtanding which, we have, by granting ſafeguards and otherwiſe, done all what in us lay to prevent the ſame.

" The late murder upon the perſon of the Salinhas was committed the 17th of Auguſt, without our knowledge, to our great diſſatisfaction, by the flying Brazilians, who, being enraged at the killing of their men, women, and children at Serinham, without any diſtinction of age or ſex, took this opportunity of revenging themſelves. You may eaſily gueſs that the papers diſperſed by Antonio Kavalcanti at Iguaracu have alſo contributed not a little to this enterpriſe.

" Of the bullets mentioned by you to have been uſed in the laſt encounter, we have more reaſon to complain than you, it being our conſtant order not to recede from what is the cuſtom of war in theſe caſes.

" The courteſy ſhewed in ſaving and receiving our ſoldiers we are ready to acknowledge, and to return upon the like occaſion, deſiring you would ſend us back your reſolution upon this point by the ſame drummer.

" It being evident from what has been alledged, that all the paſt misfortunes ought to be imputed to the rebels, unto whom we endeavoured by all requiſite means to reſtore tranquillity and peace; but they, perſiſting in their rebellious deſigns, deſerve rather condign puniſhment than the leaſt excuſe at your hands. For which reaſon it is that we proteſt before God and the whole world, againſt the proceedings of His Excellency Antonio Telles de Sylva, and what elſe has been committed by yourſelf contrary to the treaty concluded betwixt His Majeſty of Portugal and the ſtates-general of the United Provinces; not queſtioning but that upon the receipt of theſe preſents, you will retire with your forces to the Bahia, and thereby put an end to the further violation of the ſaid treaty. Thus, expecting your anſwer, we reſt,

" Receif, Aug. 20, 1645. Sir, yours, &c."

The ſame night word being brought that ſome of the enemy's troops were advanced to Olinda, notice was given to all the circumjacent forts to prepare for a vigorous de-

fence, and two batteries ordered to be raiſed on the back-ſide of the dwelling-place of the negroes, from whence they might command the avenues to the Receif along the river ſide. Several volunteers lately come from the flat country, were incorporated into one company, under the command of Secretary Hamel, as captain, and Jeronymo Holman their lieutenant: two advanced guards were placed, one betwixt the fort Bruin and the triangular fort; the ſecond betwixt the laſt and Count Maurice's plantation: part of the bridge of Boaviſta was broken down to hinder the enemy's paſſage that way; and conſidering the importance of the triangular fort, a detachment of twenty-ſix ſoldiers, out of ſeveral companies, was ordered to reinforce the garriſon there. The ſame care was taken for the ſecurity of Maurice's Town, Antonio Vaez, the fort Erneſtus, the quiquangular fort, and all the reſt.

Major Bayert was ordered to have the remaining walls of Count Maurice's ſtables pulled down, becauſe they hindered the proſpect from the fort Erneſtus; and Henry Vermeulen was commanded to employ thirty negroes in clearing the plantation of Count Maurice and the ditches from all rubbiſh; and the before-mentioned Bayert ordered to remove the paliſadoes from the ſaid gardens, and to put them round his fort. The engineer Piſteor had orders given him to ſet a row of paliſadoes on that ſide of the fort of Erneſtus, where it fronts the before-mentioned gardens, and to extend them five rods into the river. And this fort being not ſufficiently ſtored with heavy cannon, commiſſary Sticht was to carry thither two great pieces, then planted at the bridge-foot, and inſtead of them to place there two culverins; likewiſe, the entrance of the channel of Maurice's Town was ſtopped by a double row of paliſadoes. The members of the council, in conjunction with thoſe of the court of juſtice, took another view of the ſuburbs of Maurice's Town, to conſult whether it were beſt to maintain or to deſert that poſt, but the reſolution thereof was deferred till the next day. Two great cannon were planted in the quinquangular fort, to command the river ſide; and in conſideration that the horn-works belonging to that fort required a conſiderable number of men for their defence, the governor of the fort was ordered to have the ſame levelled by his Brazilians and ſoldiers, and one hundred negroes; and the woods betwixt the ſaid fort and the Affagados, were ordered to be cut down by the Brazilians belonging to the fort, when it was alſo reſolved to draw the fortifications of Maurice's Town into a narrower compaſs, and to repair the walls round the Receif; ſo that by the indefatigable care of the council, all the fortifications, both of the Receif and the other adjacent places, were put into ſuch a good poſture of defence, that the enemy, though very ſtrong, durſt not attempt any thing thereabouts for that time. Mr. Dortmund had drawn near fourteen hundred perſons into Itamarica, ſeven hundred of which being women and children, he deſired ſome ſupplies of proviſions, but for the reſt, had put the iſland in a good poſture.

Mr. Linge, by his letter, dated in Parayba, the 22d of Auguſt, ſent advice to the council, that after notice given him of the defeat of Colonel Haus, he had judged it moſt convenient to remove the garriſon and inhabitants of Fredericia into the forts; that however, the Portugueſe were pretty quiet as yet, notwithſtanding his whole force conſiſted not in above four hundred ſoldiers, one hundred inhabitants, and fifty Brazilians, among whom were a good number of ſick and maimed men; and that the Tapoyers had ſlain about twelve or fourteen labouring countrymen. Major Hoogſtraten, Ley, and Heck, had not long before given notice to the council, that they had burnt all the houſes, but eſpecially the magazine and church without the fort, for its better defence, and that the enemy haſt poſted themſelves on the hill of the cape, and on the ſouthern iſland.

On the 25th of Auguſt, upon another review of the fortifications of Maurice's Town, the ſame were ordered to be brought forthwith to perfection.

The ſame day the council received letters from Mr. Linge, by the way of Itamarica, dated the 18th and 19th of Auguſt, in Parayba, that William Barents had ſent him advice from Kunhao the 14th of Auguſt, that he and Rudolph Bawn had a troop of Tapoyers ready for our ſervice, every thing being very quiet thereabouts; but that the ſaid Tapoyers had carried away all the cattle belonging to Peter Farcharſon, which had occaſioned no ſmall ſcarcity of freſh fleſh thereabouts.

It was alſo judged abſolutely neceſſary by the council, to take into their ſerious conſideration the preſent condition of the forts in Rio St. Franciſco and Seregippo del Rey, which being provided but with ſlender garriſons, and all communication cut off betwixt them and the Receif, and in great danger of being loſt; it was judged abſolutely neceſſary, after the defeat of Colonel Haus, to endeavour the preſervation of them, and conſequently of the whole Dutch Brazil, by removing them from thence to the Receif.

To accompliſh this with all imaginable ſecurity, Mr. Walbeck was deputed by the great council to the council of war, to know their opinion, by what means theſe garriſons, as well as that of Porto Calvo, might be with ſafety brought to the Receif, or whether, conſidering that they would be forced to leave their cannon behind them, they ſhould be ordered to defend themſelves to the laſt extremity, in hopes of receiving ſpeedy ſuccours from Holland for their relief.

The council of war having well weighed the whole matter, unanimouſly agreed upon the following reſolution:

The Reſolution of the Council of War.

"That it was their opinion, conſidering the capital city was in danger, for want of a ſufficient garriſon, the garriſons of the before-mentioned forts, which in all probability could not make any long reſiſtance, ought to be taken from thence, with as much ammunition and cannon as could be done, and carried to the Receif. But in regard that the fort of Porto Calvo lay pretty deep into the country, where the river was very narrow and ſhallow, the garriſons of Rio St. Franciſco and Seregippo del Rey were to paſs that way, in order to join them, and that they ſhould bury or break their cannon.

"By order from the council of war, Auguſt 24, 1645.

"(Signed) KORNELIS BAYER,
ALBERTUS OOSTERMAN,
L. VAN HARKEMAN,
JOHN DENNING,
SAMUEL LAMBARTZ,
HENRY ADVOCAET,
FREDERICK PISTOOR,
CAPTAIN HAELMEISTER,
RENE DE MOUCHY."

Accordingly two barks, with the ſhip Zealandia, were ordered for the execution of this enterpriſe, to Rio St. Franciſco.

The laſt day of Auguſt, one of the captains of theſe two barks returned, and gave an account that he, being advanced into the river of Rio St. Franciſco, within a league of

of the ſaid fort, he received ſo warm a ſalute of ſmall ſhot from a Portugueſe veſſel full of fire-locks, that he was forced to return, without being able to penetrate any further up the river; that the other bark being diſcouraged thereat, durſt not venture to go to Seregippo, but that they thought fit to retreat back with the ſhip Zealandia; he further added, that it would be very difficult to put this deſign in execution, unleſs they were provided with ſome galiots and yachts well armed.

Purſuant to this advice, the council ordered the yacht called the Sprew, with three other barks, thither, to join with the ſhip Zealandia, for the more effectual execution of this deſign.

They ſet ſail from the Receif the 2d of September, Captain William Lambartz commodore. He returned with the ſaid yacht and the Zealandia, the 1ſt of October, to the Receif, where he gave the following account of his expedition to the council:

We came, the 22d of September, within a half league of the fort of St. Maurice, where we met with a bark, which, at the diſcharge of one of our cannon, ſailed away before us up the river. As we were in purſuit of her, we eſpied another ſmall veſſel, in company of the bark belonging to John Hoek, both full of ſoldiers: we ſaw the firſt of theſe two run aſhore, and the ſoldiers landing, who ſkirmiſhed with an oppoſite party for the defence of the veſſel: our yacht, under favour of our cannon, boarded the ſaid veſſel, with an intention to ſet it on fire; but finding it loaden with the baggage of our ſoldiers, fell to plundering firſt; and ſoon after eſpied a boat, with a white flag, making all the ſail they could towards them: Major Pappenheim, late commander of the fort of Rio St. Franciſco, and Mr. Hoek, were in this boat, being ſent by the enemy to let us know, that if we ſet fire to the veſſel, he would cut all the priſoners, with their wives and children, to pieces, ſo that we deſiſted from it. They gave us an account, that the ſaid fort had been forced to ſurrender three days before, for want of wood and proviſions, after a ſiege of twenty-ſix days: that the Portugueſe, having taken a ſerjeant, with four ſoldiers of the garriſon of Seregippo, had killed the ſoldiers, and ſent the ſerjeant back with a convoy of two hundred men, to fetch the garriſon of Seregippo, which had not above four days proviſion left, from thence. That about eight days before the ſurrender of the fort, Colonel Haus, Captain Liſtry, and Captain Wiltſchut, paſſed by that way, in their journey to the Bahia, whither they, purſuant to their capitulation, were to be carried, with the reſt of the priſoners, and from thence to Portugal, and ſo further to Holland, without any other loſs except their baggage, being for the reſt indifferently well treated. They further added, that the Portugueſe, not long ago, detached two hundred men to the iſland of Melchior Alvares, in hopes to cut off the retreat of our men, and to prevent their excurſions, but came too late, our people being retired before. That the enemy had likewiſe made themſelves maſters of the fort Dos Aſſagados, where Mr. Bulleſtraet being made a priſoner, was now on his way to the Bahia. Captain Lambartz hearing this account, thought it his beſt way to retreat towards the mouth of the river, where, having ſpent two days in refitting his ſhips, he returned the 1ſt of October to the Receif.

The ſame ill ſucceſs attended us at Seregippo and Porto Calvo; for the council having ſent a bark with proviſions to their relief, the ſame, contrary to her orders, came to anchor before Rio St. Franciſco, where being ſeized by the enemy, the garriſon of Seregippo being thereby diſappointed in their hopes, were forced to ſurrender, after they had ſpent all their proviſions. After this misfortune, there was not the leaſt probability left of ſaving the garriſon of Porto Calvo, which lying deep into the country, the river was not navigable thereabouts, by reaſon of its narrowneſs, and that the enemy was maſter of the field on both ſides, ſo that they were likewiſe obliged to ſurrender for

want of neceſſaries. The garriſons of theſe three forts were, contrary to their capitulation (by virtue of which they were to be conducted to the Receif), carried priſoners to the Bahia; but thoſe that could not follow the reſt, by reaſon of ſickneſs, or otherwiſe, were cut to pieces by the Portugueſe.

Many of the ſoldiers belonging to theſe as well as other garriſons, and of the troops under Colonel Haus, dreading the danger of the land journey to the Bahia, did take ſervice among the Portugueſe: but Captain Nicholas Nicholſon being ſent with ſixty-four of theſe Dutch to prepare an ambuſh for ſome of our forces, took this opportunity to join with us, which exaſperated the enemy to that degree, that they diſarmed all the Dutch that had taken ſervice there, and murdered them in cool blood, the like they did with the Dutch inhabitants that had ſtaid behind in the country.

In the meanwhile the captainſhip of Parayba, through the good conduct of their governor Paul de Linge, remained in obedience, at leaſt in outward appearance, till the 25th of Auguſt 1645, when the inhabitants, having received intelligence of the defeat of Colonel Haus, and the ſurrender of the cape of St. Auſtin, and being at the ſame time encouraged by the ſuccours of five companies, and good ſtore of arms, ſent to them by Vidal from Pernambuko, they began alſo to take up arms, with an intention to cut off the communication betwixt the garriſon in the monaſtery of St. Franciſco, as the inhabitants of Fredericia (a place of no ſtrength), and the forts near the ſea-ſhore; but Mr. Linge ſhrewdly ſuſpecting their deſign, did, with conſent of the reſt of the officers there, order all the citizens with their effects, and the before-mentioned garriſon, to withdraw within theſe forts, to prevent their being ſurpriſed by the Portugueſe, and to ſerve as an additional ſtrength for the defence of the forts; for which reaſon alſo the Brazilians inhabiting with their families in thoſe parts, were commanded to intrench themſelves under the cannon, which ſerved for outworks to them. The enemy finding themſelves by the conjunction of theſe forces, diſappointed in their deſign of making themſelves maſters of Parayba by force, had recourſe to their wonted artifice, not queſtioning but they might have the ſame ſucceſs in purchaſing the forts of Parayba, as they had had at the cape of St. Auſtin. To encompaſs which, they ſent in September 1645, one Ferdinand Rodrigo de Bulhaus, clerk of the court of juſtice of Parayba, with a letter directed to the commander-in-chief, Paul Vander Linge, offering him the ſum of nineteen thouſand gilders, if he would ſurrender the ſaid fort into their hands. But this meſſage had not the deſired effect, the meſſenger being, by order from Mr. de Linge taken into cuſtody, and hanged the next day; of which he ſent notice to the council the 16th of September. In the meanwhile, (according to Mr. de Linge's letter from the 6th of September) five companies more of the enemy's troops, making in all about three hundred men, were arrived in Parayba, which being joined by the ableſt of the inhabitants, had poſted themſelves near Tibery, where they had publiſhed by proclamation, for every one to repair to his ſugar-mill, under pain of forfeiting the ſame.

The paſſage betwixt the Affagados and the quinquangular fort, where the cattle belonging to the Receif were kept at paſture, being much infeſted by the enemy's parties, one of which had taken good part of it, a ſmall wooden fort was ordered to be erected in the moſt convenient poſt, for the ſecurity of the meadows thereabouts.

Some time before, viz. the 26th of July, orders were ſent from the council to Servaes Carpentier, to diſarm the inhabitants of Goyana, who thereupon petitioned the ſaid council to be excuſed from ſurrendering their arms, conſidering that thirty-ſeven Portugueſe of Kunhao, who had been diſarmed, were murdered by the Tapoyers, and that they were daily in fear of the ſame treatment, till they were further removed from their

borders.

borders. The council anſwered, that the murder committed upon theſe Portugueſe had been done without their knowledge, and contrary to their orders; that in caſe they perſiſted in their allegiance, they had nothing to fear from the Tapoyers, whilſt they were under their protection; neither ought they to imagine that the diſarming of them, was done with an intention to leave them a prey to the Tapoyers, but for our own ſecurity, and to furniſh them with a plauſible excuſe not to join with the rebels, whenever they ſhould be prompted thereunto by them. At the ſame time they repeated their orders to Mr. Carpentier, not to deſiſt from diſarming thoſe of Goyana, notwithſtanding their petition to the contrary, but that he ſhould be very careful, that neither the ſoldiers nor Brazilians of Marni might be burthenſome to them. The council alſo deputed Mr. Aſtelle and Captain William Lambartz, with letters to John Duwy and Karakara, the firſt king, and the ſecond commander-in-chief of a troop of the Tapoyers, with preſents to all the reſt of their commanders, in order to engage them to join with us, they having complained of their not having been preſented, like as John Duwy was before; accordingly the ſaid Mr. Aſtelle and Captain William Lambartz having taken their leave the 28th of Auguſt of the council, took ſhipping for Parayba, in order to go from thence to Kunhao to treat with the Tapoyers.

The members of the court of juſtice and the council of war, in conjunction with the magiſtrates, having repreſented to the great council the abſolute neceſſity of having the houſes in Maurice's Town pulled down and laid level with the ground; an order of the ſaid council was publiſhed the 29th of Auguſt by beat of drum, enjoining the inhabitants to pull down ſuch houſes, within the ſpace of two days, and in caſe of failure, every body to be at liberty to break down the ſame for his uſe; the houſe of Mr. Rechteren only excepted, which was to be converted into a redoubt, for the defence of the adjacent plain. The ſame day John Denninger, lately lieutenant to Colonel Haus, ſucceeded Captain Baar, now a priſoner with the enemy, in his command; and many negroes offered to ſerve the company under a captain of their own chooſing.

The 30th of Auguſt, Captain William Lambartz, with part of his forces returned to the Receif from Parayba, where he gave the council an account of his negotiation: that not without a great deal of trouble they at laſt obtained two hundred Tapoyers from their king John Duwy, who pretended that he dreaded an incurſion from one of his neighbours, who in the abſence of his troops might perhaps kill him with all his family, and demanded at the ſame time, that all the Portugueſe might be killed in Parayba. That he marching with theſe Tapoyers into the ſaid captainſhip of Parayba, they actually ſlew all the Portugueſe they met with in their way, to the number of one hundred perſons, and plundered their houſes; and as ſoon as they found him prepared to appeaſe them, one half of them, with what negroes and other booty they had got, returned home; but continuing his march with the reſt through Goyana towards the Receif, the Tapoyers did no ſooner underſtand that they were likely to meet with ſome oppoſition by the way, but they followed the footſteps of the reſt homewards, ſo that he was forced to retire with all ſpeed to the fort of St. Margaret in Parayba, from whence he returned by ſea to the Receif. Hereupon the council diſpatched ſome letters the 16th of September for Rio Grande, directed to king John Duwy, Jacob Rabbi and Rudolf Baro, exhorting them to join their arms with ours, for our mutual defence, and to chaſe the Portugueſe that were on their march thither, from thence.

The 13th of September 1645, Jeronymo Serrao da Payva, late admiral of the Portugueſe fleet (made priſoners in the late ſea-engagement in the bay of Tamandare) appeared before the council, where being examined concerning the deſigns of the governor of the Bahia in ſending a fleet, and landing his forces in the bay of Tamandare, as likewiſe

wiſe concerning the fleet under the command of Salvador Korrea de Saa, he refuſed to give any other anſwer, or to make the leaſt confeſſion, but that he was ſent with the ſaid fleet and forces to offer his aſſiſtance to appeaſe the revolt ariſen among us. He deſired alſo leave to ſend a letter by a drummer to the colonels Martin Soares Moreno and Andrew Vidal, about the exchanging of his perſon, and ſome other Portugueſe priſoners, which was granted.

Some of the citizens having conceived a jealouſy, as if their preſſing circumſtances and the need they ſtood in of preſent relief, had not been ſufficiently repreſented to the council of Nineteen in Holland, it was thought fit by the council to communicate the contents of the two laſt letters to their ſatisfaction.

The 19th of September, about noon, our whole fleet retired from the bay of Tamandare into the road of the Receif, with two men of war and two ſmall veſſels, taken from the enemy; where I was arrived long before, having left them immediately after the engagement. The ſame night Servaes Carpentier, who died the day before, was interred. The ſame day the yacht called the Doe, and one of the ſmall veſſels taken from the enemy, and called by us the Receif, were ſent a cruiſing to the cape of St. Auſtin, to prevent the enemy receiving any ſupplies by ſea thereabouts.

The conncil being ſenſible that the enemy made it his chiefeſt endeavour to drive away their cattle, and to prevent them by ſtrong parties from fetching of wood and fiſhing, a company of fuzileers were ordered to be erected out of other companies, who were to be commanded by Captain Renbagh, and to ſerve as a conſtant guard againſt the enemy's flying parties. The 21ſt of September, the following proclamation of pardon for ſuch as had taken ſervice with the enemy, was publiſhed.

A Pardon publiſhed.

"The great council of the Dutch Brazil being made ſenſible, that many of their ſubjects being fallen into the enemy's hands, have either for fear of being killed or tranſported, and out of other conſiderations, taken ſervice among the enemy's troops, and conſidering that moſt of them have been inveigled by their commanders, and perhaps are in a fair way of repenting of their error, have thought fit, by theſe preſents, to grant our pardon to all ſuch as ſhall return to our ſervice, for all paſt offences; with our promiſe, that they ſhall receive the advantage of the ſame ſtation they were poſſeſſed of among us before; and ſuch as are willing to return to their native country, ſhall have paſſports granted them for that purpoſe: from the benefit of which pardon, are however excepted Dirck Hoogſtraten, and the other traitors, who being commanders of forts, have treacherouſly delivered up the ſame to the enemy."

By this time the enemy had blocked up all the avenues by land, leading to the Receif, in hopes to reduce us by famine, having poſted both all the Portugueſe forces ſent to their aid from the Bahia, and the rebellious troops from the city of Olinda to the Baretta, in the form of a half-moon; and made about half a league from the fort of Affagodas an entrenchment provided with ſix pieces of heavy cannon, brought hither from Porto Calvo; but durſt not attack us by force, knowing we were prepared for their reception.

Mr. Dortmund having by his letters repreſented to the council, the neceſſity there was of ſending one of their members to provide for the ſecurity of Itamarika, and to keep the Brazilians (conſiſting of fifteen hundred men, women, and children), by his authority in their duty againſt the ſolicitations of Kamaron, who left no ſtone unturned

turned to bring them over to his ſide; they deſired Mr. Bulleſtraet to take upon him this province; who accordingly, the 23d of September, ſet ſail thither in the ſhip the Deventer, and returning the 29th of September to the Receif, gave the following account to the council.

He arrived about noon at the entrance of the river Maria Farinha, where being informed by John Vos, maſter of a bark, that the enemy had twice attacked the city of Schoppe, and continued before it ſtill, he went in a ſhallop with five or ſix ſeamen to the fort Orange, but was no ſooner eſpied by the garriſon, but they deſired him not to come nearer, they being ſtill ſmartly engaged with the enemy upon the hill, and doubtful of ſucceſs: whereupon he ſent two ſeamen, with a letter to Mr. Dortmund, who being encouraged by the reward of two reals, brought an anſwer from him the ſame night, intimating that the enemy had been forced to retire.

The 25th of Auguſt, by break of day, he went in a ſhallop to the city of Schoppe, and finding that the enemy, what with the brave reſiſtance made by the garriſon, what with fear of this ſhip, had abandoned not only the city, but alſo the whole iſland, he ordered the fortifications to be forthwith repaired, and to be put into a good poſture of defence.

For the enemy perceiving that it was in vain to attack us upon the Receif, ſent great part of their forces, embarked in eight boats and a bark, againſt Itamarika, the 20th of September; where having ſurpriſed and vigorouſly attacked our forces, poſted on the hill near the city (our deſerters making the firſt attack), that they the third time made themſelves maſters of it, forcing our troops to retreat into their entrenchments of the church.

About three days after, viz. the 23d, Mr. Bulleſtraet, as we are told, arrived in the ſhip Deventer, to give the neceſſary orders for the defence of the place; and to keep the Brazilians in awe, he brought along with him ſome volunteers choſen from among the citizens, the garriſon of the Receif being ſo weak as not to be rendered uſeleſs by any further detachments; beſides that there were four hundred Brazilians capable of bearing arms at Itamarika. He was charged by the great council, and the members of the council of war, to watch above all things for the defence of the fort Orange, which was to be maintained to the laſt, if they were not able to keep the whole iſland on the hill.

Mr. Bulleſtraet, after his arrival there, found it abſolutely neceſſary to preſerve likewiſe the city of Schoppe, from whence the ſaid fort muſt be ſupplied with wood, its ſituation being ſuch, as that ſo long as we were maſters at ſea, we could maintain a correſpondence betwixt the ſaid fort and city; for which purpoſe alſo, the yacht called the Golden-Doe, had her ſtation appointed betwixt the fort Orange and the hill, to maintain the paſſage of the river between both. But to return to the ſiege of the city: the enemy made three vigorous attacks upon the entrenchment on the hill, but was repulſed with the loſs of one hundred and fifty killed; though a barber, who after the fight deſerted them, made their loſs amount to four hundred and fifty. Kamaron and Hoogſtraten were wounded, and we had only fifteen killed and ſixteen wounded. The Brazilians lately tranſported thither, from the villages of Goyana, Iguaracu, and other places, behaved themſelves to a miracle upon this occaſion, though it muſt be allowed that the arrival of Mr. Bulleſtraet did not a little cool their courage, which made them abandon the iſland in the night, betwixt Sunday and Monday.

The 2d of October the great council entered upon a ſecond debate concerning the preſervation of Itamarika, they having received certain intelligence, that the enemy had undertaken the laſt expedition againſt that iſland, upon hopes of being ſeconded

therein by certain perſons of our party, with whom they kept a ſecret correſpondency; and though they were in the dark upon whom in particular to fix the intended treachery, yet did they think it conducing to the ſafety of that ſo important place, to remove Captain Sluyter with his company from thence, and in their ſtead to ſend thither the company commanded by Captain William Lambartz, and to intruſt him with the ſupreme command of all their forces there, which was put in execution accordingly the next day. The entrenchments round the church and the fort Orange were alſo ordered to be ſtrengthened with paliſadoes; and the firſt (purſuant to the advice of Garſtman and Dortmund), I ordered to be ſurrounded with a counterſcarp, within the compaſs of which a company of Brazilians were lodged, with their wives and children, and the reſt to be employed in the defence of the fort Orange; ſo the redoubt which commanded the place, from which the fort was ſupplied with water, was ordered to be repaired againſt a ſudden attack, without which the fort could not long ſubſiſt, or hold out againſt an enemy.

Letters were about the ſame time delivered to the council, dated the 5th of October, by Major Auſtin de Magethaes, ſent by Andrew Vidal, to treat about the exchange of priſoners; he told them, that ſince Admiral Serrao de Payva had by two ſeveral letters ſolicited his releaſement, he deſired that the ſame might be exchanged for other ſoldiers, or be ranſomed by Antonio Telles de Sylva, governor of the Bahia. He deſired alſo that a cartel might be agreed upon for the exchange of the ſoldiers; and that in the meanwhile ſuch of the Portugueſe inhabitants, as were priſoners with us, might be releaſed for reaſonable ranſom, which was not accepted of by the council.

In the meanwhile (purſuant to the letters from the commander-in-chief of Rio Grande, and John Hoek of the 6th of October), Jacob Rabbi, with a ſmall troop of Tapoyers and Brazilians, in conjunction with thirty Dutch inhabitants, made themſelves maſters of the ſeat of John Leſtan, with the ſlaughter of fifteen Portugueſe. But they had not the ſame ſucceſs at Fernandez Menda's houſe in the Potigi, which being defended by fifty Portugueſe, they were repulſed with ſome loſs.

The enemies finding themſelves diſappointed in their deſign of gaining Parayba by treachery, did again apply all their care to block up the avenues leading to the Receif, in hopes of reducing it by famine. This occaſioned many ſkirmiſhes, in which the Brazilians, who got the greateſt part of their proviſion out of the country, did a conſiderable miſchief to the Portugueſe; who for their greater ſecurity built a fort in Pernambuko (as they likewiſe did in the Vergea of Parayba) near the ſugar-mill of George Huomo Pinto, but ſlightly fortified, and not able to hold out againſt any vigorous attack. In Rio Grande the Tapoyers played the maſters over the Portugueſe; for as we told you before, that according to their cuſtom they entered the ſaid captainſhip in July 1645, when being informed of the rebellion of the Portugueſe in Pernambuko, they out of an in-born hatred to that nation, attacked the 16th of July ſome of them in the ſugar-mill of Kunhao, and killed every ſoul of them, the Dutch inhabitants thereabouts not being ſtrong enough to prevent it. From thence the Tapoyers marched to Monpobu, Goyana, and Potoſi, places belonging likewiſe to Rio Grande, where finding a body of Portugueſe entrenched with paliſadoes in the nature of a Palanka, they forced them, in conjunction with ſome Brazilians, to ſurrender, under condition that their lives ſhould be ſaved, provided they did not give any further occaſion of diſturbance. But ſome of the Portugueſe flying afterwards into Parayba, the Tapoyers looking upon this as a breach of the late treaty, did with the before-mentioned Brazilians agree to put the reſt to the ſword wherever they met with them, which they

did

did accordingly, the Brazilians exclaiming againſt the tyranny committed upon thirty or forty of their comrades, who, by Andrew Vidal's order, were tied to paliſadoes in Serinham and ſtrangled, which had this good effect, that Rio Grande for that time was entirely purged of the rebellious crew, except ſome few who eſcaped their hands. Their eſtates and cattle were afterwards diſpoſed for the benefit of the company, and others their creditors, which furniſhed the public magazines with good ſtore of fleſh, at a very ſeaſonable time. The Portugueſe being ſenſible that we drew conſiderable ſupplies of proviſions from that country, endeavoured to prevent it by ſending ſeveral bodies of their troops thither, but were always forced to retire to Parayba, whither they carried as much cattle along with them as they could.

According to the depoſition of Captain Nicholas Nicholſon (who came over to us the 12th of November, as we ſhall ſee anon) the four companies of Dutch quartered in the Vergea were as follows:

The company of Nicholas Nicholſon, ſixty-three men, and among them twenty-three muſquets.

The company of Alexander Buchhalt, of forty-three men, among whom thirty-ſix muſquets.

The company of Captain Anthony, who was mortally wounded in a late engagement, conſiſted of thirty-ſix men, and among them thirty-two muſquets.

The company of John de Wit, of forty men, but miſerable wretches, and among them only twelve muſquets.

Beſides theſe they had two other Dutch companies in Goyana, one commanded by George Peterſon of ſeventeen men, all pikes, the other by La Cour of nineteen men, likewiſe moſt pikes. They had alſo two more in Parayba, one under the command of Captain Peter Gendre of nineteen men, moſt pikes; the ſecond by Edward Verſman of twenty men, among whom was but one muſqueteer. So that the whole number of theſe eight companies amounted to no more than two hundred and fifty-ſeven men; their colonel was Hoogſtraten, and Francis la Tour, late alderman of Serinham, major, a profeſſed enemy to the Hollanders. Moſt of the Dutch priſoners were put under a neceſſity of taking ſervice with the enemy, being otherwiſe in danger of being murdered in their way to the Bahia, as it happened to forty-two priſoners taken at the cape of St. Auſtin, who were all ſlain in the ſugar-mill Konjau, near Serinham. He further declared, that the enemy's forces in the Vergea conſiſted of about ſeven hundred men, ſent from the Bahia, divided into nine companies, well armed with muſquets and fire-locks. That beſides theſe, they had about one hundred men, gathered from among the Portugueſe inhabitants, they having forced all the young men from the ſouth of Huma, as far as St. Lawrence, to take up arms: ſome being armed with fire-locks, others with muſquets they had taken from us; they were for the moſt part mulats, and an undiſciplined rabble, commanded by John Fernandes Vieira as colonel, and Anthony Dias, (who came from the Bahia) their major. Their captains moſt in eſteem among them were, Simon Mendes, Domingos Fagundos, and John d'Albuquerque. Kamaron commanded one hundred Brazilians armed with blunderbuſſes, and Dias two hundred negroes (among whom fifty were ours), provided with very good guns; beſides ſome Tapoyers. Each ſoldier had for his daily allowance, a pound of meat, and about a pint of farinha or meal, and twelve gilders per month; a captain one hundred and twenty gilders, an enſign forty-two, a ſerjeant twenty-one, and a corporal fifteen gilders per month. But they only paid the Dutch troops with ready money, the account with the Portugueſe from the Bahia being made up but once a year. They were at that time buſy in raiſing of a fort with four ſmall baſtions and a powder-houſe,

betwixt Bierbrom's ſugar-mill and Caſa de Sabrodo, upon each of which were to be mounted three pieces of cannon, eight pieces having been brought for that purpoſe from Porto Calvo, among which were five of metal. Round about this fort the ſoldiers from the Bahia had their quarters aſſigned them, except the company commanded by John de Magehais, which was quartered in the Baretta, with four Dutch companies, viz. the Dutch that were in the ſugar-mill of Bierbrom, and thoſe commanded by Captain Peter Kavalkanti, and Anthony Jaconio, and two or three companies of the Portugueſe come from the Bahia, in the ſugar-mill Brito; the reſt being Portugueſe, mulats, and other idle fellows they had forced to follow them from the ſouth. Theſe were armed for the moſt part with fire-locks and muſquets, the reſt with pikes. Andrew Vidal, John Fernandes Vieira, and Major Hoogſtraten, were at that time in the Caſa de Sabrodo; all theſe conſiſted not in above ſix hundred men. About the ſugar-mill of John de Mendonce were quartered three companies, two at the houſe of Sebaſtian Karvalho, and two more in the ſugar-mill of Mengao. The reſt were poſted in the Salines, Baretta, and the city of Olinda. Some of Kamaron's troops were in the ſugar-mill of Van School, and in the houſe of John Kordero de Mendoje, upon the bank of the river, being their advanced guard; Henry Dias with his troops had his poſt in the houſe of Mr. Luffelen. The redoubts belonging to the city of Olinda were manned only with ſeventeen ſoldiers.

In November the great council received intelligence, both by letters from Paulo de Linge out of Parayba, as alſo by ſeveral deſerters, that the enemy had ſent four hundred men, two hundred of which were ſoldiers, the reſt inhabitants, from Rio Grande into Parayba, to make themſelves maſters of the open country, or at leaſt to drive away the cattle; whereupon it was reſolved, with conſent of Colonel Garſman, to endeavour to hinder the execution of the enemy's deſign.

The 12th of November, Captain Nicholas Nicholſon, a native of Amſterdam, came, as we told you before, over to us to the Receif. He was among other priſoners of the cape of St. Auſtin, carried from thence to St. Antonio, where he took ſervice among the Portugueſe, but with no other intention than to deſert them upon the firſt opportunity; he being entruſted with a captain's commiſſion, to command a company of Dutch ſoldiers forced to liſt themſelves from among the priſoners they had taken, was ordered, at the recommendation of Hoogſtraten, and Albert Geuitz Weddo, with the approbation of Vidal and John Vieira, to lie in ambuſh for ſome of our people in the Salines, with a detachment of ſixty men, out of the four Dutch companies in their ſervice; and four more companies were ordered for a reſerve, to aſſiſt him upon all occaſions. The ſupreme command of the whole body being committed to him, he approached as near as he could with his Dutch to the fort Bruin, where he took the opportunity to paſs the river by break of day, and to go with them (they being all willing to follow) over to us to the ſaid fort. Captain Nicholas Nicholſon had the command over the ſaid company confirmed to him by the council, they being all willing to enter into their ſervice. But the enemy had no ſooner notice of it, but they diſarmed all the Dutch, and under pretence of ſending them to the Bahia, cauſed them to be murdered by the way, with their wives and children.

The 2d of November, the council had received advice from Mr. Linge from Parayba, that Andrew Vidal had entered that captainſhip with two hundred men, and that Kamaron had by letters ſtrongly ſolicited Peter Potty, to deſert our ſervice with his Brazilians, but had received a ſmart refuſal; the council ſent him two pieces of fine linen cloth as a reward of his fidelity. For it ought to be obſerved, that the Portugueſe, when they firſt began to take up arms againſt the government, did with letters and

great promiſes tempt the regidores or commanders of the Brazilians to join with them, but they were ſo far from hearkening to them, that they ſent all the letters written upon that account, both by Kamaron and the reſt of the rebellious ring-leaders, without opening, to the council, thereby to avoid all ſuſpicion of keeping any correſpondence with the enemy, Peter Potty being a near kinſman of Kamaron; and ever ſince that time they have behaved themſelves ſo well upon all occaſions, and have done ſuch conſiderable miſchiefs to the Portugueſe, by plundering and killing them, wherever they could meet with them, that we had not the leaſt reaſon to miſtruſt the ſincerity of their intentions.

The ſaid Mr. Linge did alſo ſend word November the 4th, that the enemy had attempted nothing as yet; and from November 14, that a party of three hundred of our people being joined by ſome Brazilians of Parayba, had engaged eight hundred of the enemy's troops, whom after a ſmart engagement they put to the rout, with the ſlaughter of a good number of their men. The Brazilians being encouraged by this ſucceſs, did over-run all the flat country, and meeting with a good number of Portugueſe, who were merry-making upon St. Martin's eve in the ſugar-mill of Andrew Dias de Tigeireda, they attacked them ſo furiouſly, that after a ſlender reſiſtance they put them all to the ſword, even the ſon of the ſaid Tigeireda himſelf, and a prieſt, without giving quarter to any body, except to a very beautiful maiden; who, though almoſt diſtracted at the death of her father, and ſome of her other relations, that lay wallowing in their own blood, had ſuch a powerful influence upon the hearts of theſe barbarians, that they brought her a priſoner ſafely to the fort of Parayba.

The 21ſt of November towards the evening, three hundred and ſixty ſoldiers (twenty of whom were taken from the Receif) ſet ſail in ſmall boats to the bay of Traican, and continued their march the ſame night, under the command of Lieutenant Berge, Juſtice Hoek, and the receiver-general of Pernambuko, towards Kunhao, in order to attack the enemy that were lately come into Rio Grande from Parayba; but theſe enemies having got ſome intelligence of our deſigns, were retired from Kunhao to a retrenchment among the bogs, which being acceſſible but in one place, they ſo warmly ſaluted our forces that would have forced them from thence with their ſhot, that they were obliged to retreat, with the loſs of ſome dead and wounded, to the caſtle of Keulen, partly to refreſh their men, partly to prevent their penetrating deeper into the council.

The 4th of December it was reſolved to ſend the ſhip the Overyſſel, and the yacht called the Sprew, towards the Bahia a-cruizing, to get intelligence of their naval ſtrength thereabouts, and to endeavour to take ſome prizes. The 5th of December the great council ſent for all the commanders of the Brazilians, to inform them, that they had received conſiderable ſupplies of powder, ball, and all other ſorts of ammunition, by the ſhip called the Swan, with letters from Holland; that they were equipping a conſiderable fleet for their relief, at which the Brazilians were extremely rejoiced; the Portugueſe commanders having made it their buſineſs to perſuade them, that no ſuch thing was expected from Holland.

The ſame evening a Brazilian deſerter declared, that all the Dutch were killed by the rebellious inhabitants, and their wives and children made ſlaves. The ſame thing was confirmed by a negroe deſerter, concerning Captain Bochholt; who having taken ſervice with the enemy, and being afterwards ſuſpected by them, had cauſed him to be murdered, as they had done with all the reſt of the Dutch in their ſervice, who were ſlain in their way to the Bahia.

The 7th of December, it was reſolved in council, to erect four companies of fuzileers, the ſame being found by experience to be more ſerviceable at this juncture, for which purpoſe,

purpoſe, the companies of Colonel Garſman, Captain Jurian Remberger, Captain Nicholas Nicholſon, and Captain John Taylor, were pitched upon before all the reſt.

In the ſame month of December, a certain Portugueſe, Gaſper Gonſalves, was taken by the Brazilians in the iſland of Itamarika, ſent on purpoſe to perſuade the Brazilians, that the Dutch intended to deliver them up to the Portugueſe for a certain ſum of money, and they to retire with their effects into Holland, which cauſed no ſmall commotion among the Brazilians, who began to give credit to the relation. And becauſe Gonſalves had ſpread this rumour abroad ſome time before the arrival of Caſpar Honyhouſe, (who the 28th of Auguſt was appointed commander-in-chief of the Brazilians of Itamarika, inſtead of Liſtry, taken priſoner by the enemy), he was hardly put to it how to remove this jealouſy from among them. Jacob Rabbi, purſuant to his letters of the 11th of December, was about the ſame time preparing to enter eighty leagues further into the country towards the Tapoyers, to ſolicit their aſſiſtance: he at laſt came to Oyepe, ſon-in-law to King Duwy, who promiſed, in caſe thoſe of Siara would ſend their troops to us, he would endeavour to raiſe as many of his vaſſals as he could; but King Duwy excuſed himſelf, under pretence that many of his troops died by ſickneſs in the Sartan.

The night before the 27th of December, the enemy had, by means of a boat, faſtened two puppets with fire-works to the ſhip called the Swan; but being diſcovered as ſoon as it took fire, was ſoon quenched without doing any damage to the veſſel; which made the ſhips to be conſtantly upon their guard for the future.

The 30th of December, two ſuch puppets, found by two ſoldiers in a ſmall boat near the fort Bruin, were preſented to the council. This boat, which queſtionleſs was ſent on purpoſe to faſten theſe puppets to ſome ſhip or other, being diſcovered by the centinels, the men quitted the boat, leaving the ſaid puppets behind them.

Mr. de Linge, by his letters dated the 30th of December, from the fort St. Margaret in Parayba, adviſed, that a certain negroe, who had deſerted the enemy's quarter of St. Andrew, had declared, that the enemy had built two large barks in order to tranſport three hundred men in each, in order to attack Peter Potty, commander of the Brazilians, in his intrenchments. That Kamaron had been near three weeks in Parayba, the enemy's troops conſiſting thereabouts in ſixteen companies; but that they had many ſick among them for want of proviſions, and that they had drawn all their forces out of Rio Grande.

The 6th of January 1646, Peter Bas, one of the members of the great council, did, by order from the ſaid council, ſet ſail with the two ſhips the Lichthart and the Receif, and a bark, called the Blue-Boar, towards the captainſhips of Parayba and Rio Grande. His inſtructions were, to conſult with Mr. Linge commander-in-chief in Parayba, and the reſt of the officers there, how to put the intrenchments and other works of the Brazilians, into a poſture of defence. From thence he was to go to Rio Grande, there to take an exact account both of the real eſtates and chattels of ſuch Portugueſe, as by reaſon of their being engaged with the rebels, were forfeited to the company; he was alſo to uſe his endeavours to have thoſe goods which were upon that account concealed or embezzled, reſtored for the benefit of the ſaid company. He was alſo ordered to act in all other reſpects, but eſpecially in providing for the ſecurity of the captainſhip and the fort, as he found it moſt conſiſtent with our preſent intereſt, and to exhort the inhabitants to remain ſtedfaſt in their duty, and not to neglect the cultivating of the grounds and breeding of cattle.

The 12th of January, Peter Dunkerke arrived from Parayba, where he had been a cruiſing before the Receif in the ſhip Hamel; he brought a letter from Mr. Linge,

dated

dated in the fort St. Margaret, the 11th of January, who ſent alſo one Mr. Steenhuiſen to the council, he having deſerted the enemy when they began to kill the Dutch in their ſervice. This Steenhuiſen brought advice to the council, that Kamaron, with five hundred well-appointed ſoldiers, was marched out of Parayba into Rio Grande to be maſters of the field there; and, conſequently, to keep our garriſons from being ſupplied with cattle and farinha from thence. He further added, that the enemy were in want of meat, oil, and other neceſſaries; but that the inhabitants flattered themſelves, that, for want of proviſions, we ſhould ſhortly be obliged to ſurrender our forts into the hands of the Portugueſe. This being likewiſe confirmed by Mr. Linge's letter, dated the 10th of January, a council was called againſt the 13th of January, Dirk Hamel and Mr. Bulleſtraet being preſent, both members of the great council, beſides the aſſeſſor Walbeck, as likewiſe Lieutenant-Colonel Garſman, Mr. Raetsfield, Mr. de Witt, Aldrich, Volbergen, and Sans, in order to deliberate concerning the preſent exigency, conſidering, that in caſe we ſhould, by the enemy's being maſters of the field, be bereaved of the ſupplies of cattle and farinha of Rio Grande, at a juncture when Itamarika and Parayba are cloſely beſet by their troops, it would be next to an impoſſibility to maintain ourſelves in the poſſeſſion of the Dutch Brazil, till the arrival of the expected ſuccours from Holland. It was therefore taken into conſideration, whether this captainſhip might be beſt ſecured by a powerful diverſion, or by endeavouring to drive him from thence. But being ſenſible that the enemy were ſo powerful near the Receif, Parayba, and Itamarika, as not to be attacked in any of theſe places, without expoſing the whole Dutch Brazil to an imminent danger, it was reſolved, that in order to attempt the relief of the captainſhip of Rio Grande, Mr. Dortmund ſhould be ordered to ſend ſixty ſoldiers under the command of Captain Welling, and one hundred Brazilians, in the barks ſent him for that purpoſe, from Itamarika to Rio Grande: at the ſame time, orders were diſpatched to Mr. Linge, commander in the fort St. Margaret in Parayba, to ſend the ſame number of ſoldiers under Lieutenant Breſman, and of Brazilians, to Rio Grande, to join with the reſt that were to rendezvous there. Theſe forces, conſiſting of one hundred and twenty ſoldiers and two hundred Brazilians, ſet ſail the 19th of January for Rio Grande, and were thought ſufficient to oppoſe the enemy's deſigns on that ſide.

Mr. Dortmund and William Lambartz, by a letter dated the 15th of January, gave notice to the council, that they had ſent a body of ſixty ſoldiers and one hundred Brazilians abroad, as far in the Aldea by Oubus, and from thence to the ſugar-mill Arraripe, but did not meet with any enemies in that part of the country, though they had ſeveral guns diſcharged at them from among the woods; ſo that they returned to Itamarika by the way of Tapaſima.

Mr. Linge, not long after, ſent advice by his letter dated the 22d of January, at the fort of St. Margaret in Parayba, to the council, that Peter Potty with one hundred and fifty Brazilians, had attacked the enemy four hundred ſtrong in the Aldea of Magrebbe, and put them to flight with the loſs of twenty killed, and many wounded, whereas they loſt but one Brazilian.

The 29th of January, it was reſolved in council, to bring the ſhips the Elias, Orange-tree, Deventer, Omlandia, and the Swan, into the road of the Receif, to be ready upon all occaſions, in caſe the enemy ſhould again appear at ſea.

Mr. Bas, purſuant to his letter from the caſtle of Keulen, in Rio Grande, dated the 23d of January, could not, by reaſon of a tempeſt, land his forces at Kunhao, in order to join them with thoſe under Captain Rhineburgh; but was forced to land his forces the 14th and 15th near Peringi. In the meanwhile, Kamaron having found means to

break in through the Matta, had ſurpriſed many of the inhabitants in their Fazendas, and killed them without diſtinction of age or ſex: he had ſince poſted himſelf with his forces, conſiſting of four hundred ſoldiers, as many Brazilians, and eighty Tapoyers, under the command of Antonio Jacomo Beſerro, at a houſe of Henry Hamme in Mompabou, to cut off the proviſions from us. Our forces conſiſting of about one thouſand ſoldiers, Brazilians and Tapoyers, marched the 23d of January to a houſe of John Leſtan Navarre, to attack the enemy, and to force them to quit the captainſhip of Rio Grande. Beſides theſe, Jacob Rabbi, and the ſons of King Duwy, were the 19th, paſt by the fort Keulen, at the head of ſixty Tapoyers, and were daily followed by others, that came to our aſſiſtance. Mr. Bas ſolicited alſo ſome ſupplies of proviſions, of which they ſtood in great want, there being above one thouſand five hundred Brazilians, men, women, and children, lodged under the caſtle. He deſired alſo ſome money, ammunition, linen, and ſilks, to preſent to the Brazilians and Tapoyers; all which, together with ſome pieces of red cloth, was ſent him by the council.

According to this advice, it being much to be feared the enemy would ſcarce ſtand the brunt in Rio Grande, but retire into Parayba, it was taken into ſerious conſideration the 29th of January, whether it would be adviſeable, in caſe the enemy ſhould be forced by our troops, or voluntarily retreat into Parayba, to purſue them thither, and thereby endeavour the recovery likewiſe of that captainſhip: but conſidering that, by reaſon of the weakneſs of our garriſons, we were not in a condition to ſend any further ſuccours from the Receif, Itamarika or Parayba, without running a manifeſt hazard to our troops there; whereas, on the contrary, the enemy did not want opportunity to relieve theirs from the adjacent places of Parayba, and that we lived in daily hopes of ſuccours from Holland, it was judged the beſt way, that the welfare of the whole Dutch Brazil ought not to be put to the hazard by ſuch an enterprize as this.

Accordingly orders were ſent to Mr. Bas and the reſt of the commanders of our troops there, to act with all imaginable caution, and rather than expoſe our men, in following the enemy into Parayba, to be contented with the recovery of the captainſhip of Rio Grande.

The 30th of March, Colonel Garſman was, by ſpecial order from the council, ſent a ſecond time with ſome troops to the captainſhip of Rio Grande, to inform himſelf, whether any troops of the enemy were poſted in that captainſhip, and in what number; his inſtructions were, that ſo ſoon as he had received intelligence of the enemy, he ſhould, with what forces he was able to bring together, endeavour to ſtop their progreſs. But if he found himſelf not ſtrong enough to oppoſe him, he ſhould ſend ſpeedy advice thereof to the council, that they might ſend him ſpeedy ſuccours, and that he was to take all imaginable care not to engage the enemy, before the arrival of the ſaid ſuccours. But if he found the enemy already ſo ſtrongly entrenched as to be maſter of the country, without any hopes of forcing them from thence, the defence of the fort Keulen ſhould be his chiefeſt care, as likewiſe of the Brazilians, with their wives and children; and ſince, in caſe the ſaid fort of Keulen ſhould be in danger of being attacked by the enemy, it would be of ill conſequence, to have theſe women and children encloſed within theſe fortifications, for fear of want of proviſions, he was ſtrictly ordered to tranſport them in time, to ſome place of ſecurity, ſuch as Siara, or the like, where they might be able to ſubſiſt, and be ſecure againſt any attempt from the enemy. He was ordered alſo in his return to the Receif, to take *en paſſant* (if it could be done without inconveniency) a view of the fortifications of Itamarika and Parayba, in order to give an account of their condition to the council.

But

But to return to Mr. Bas: according to his letters dated the 30th of January from the fort Keulen, Captain Rhinebergh had with his body made ſix ſeveral attacks upon the enemy, who was retired from Mompabou and Kunhao into a bog, without being able to force their entrenchments; we loſt about one hundred killed and wounded in this action, and retreated to the houſe of John Leytan with order to get ſome cattle, which was very ſcarce thereabouts, our forces feeding moſt upon fiſhes, which they caught by the help of two large nets; twenty-eight of our wounded men were brought to the Receif, with advice that notwithſtanding this unſucceſsful attack on our ſide, the enemy were retreated into Parayba. Mr. Bas alſo ſolicited ſome freſh ſupplies of men and ammunition, in order to purſue them into Parayba, but the reſolution upon this head was deferred until they ſhould hear further from Mr. Bas. The 7th of February, it was reſolved by the council, with the approbation of Admiral Lichthart, to equip the Hollandia and the Swan, together with the yachts, the Flight, the Hamel, Bulleſtraet, and Lichthart, for cruizing. By letters from Mr. Linge, dated the 11th of February, at the fort Margaret in Parayba, the council was adviſed; how that, according to the depoſition of a negro deſerter, Kamaron was come with all his troops into the city of Parayba, with an intention to attack our forts on that ſide; an anſwer, with what was thought neceſſary for this preſent purpoſe, was immediately ſent back in a bark by the council. By another bark ſent by Mr. Bas from Rio Grande, they were advertiſed, that he lay ſtill encamped with his troops near the houſe of John Leſtan, where with much ado he could get proviſions for them, the enemy being ſtill poſted at Momguappe, and guarding all the avenues into the country; that he had ſent ſeveral ſpies abroad, to get intelligence concerning the preſent poſture of the enemy. The 17th of February, the ſhip the Swan and the yacht called Bulleſtraet were ordered to go out a-cruizing; the 18th, the yacht the Flight, and the 20th, the ſhip Hollandia, ſet ſail for the ſame purpoſe. The ſhip the Overyſſel was alſo ordered to go out, to ſerve for a ſpy-ſhip on the coaſt of Parayba.

The 21ſt of February, the council received a letter from Mr. de Linge, dated the 18th, in the fort of St. Margaret, intimating that he had heard nothing ſince of the enemy. Yet that he wiſhed the forces he had ſent to Rio Grande might be returned with all convenient ſpeed, to make uſe of them for the defence of his forts, in caſe of an attack. The 24th of February, a party under command of Captain Killion Taylor and Captain Nicholas Nicholſon, were ſent abroad towards the iſland of the Barette to get ſome priſoners, but they returned the 20th to the Receif, having met with nobody except a man, at a conſiderable diſtance. Another party which had taken their way towards Olinda and Bracco de St. Jago, but with the ſame ſucceſs, the enemy having only ſhewn himſelf at a diſtance, as they were returning to the fort Bruin. The 27th of February, the enemy appeared with a ſtrong body in the Salinas, but being ſaluted by ſome cannon-ſhot from the fort Bruin, retired without attempting any thing.

In the meanwhile, according to Mr. Linge's letter, from the 2d of March, three barks with ſoldiers were arrived in Parayba from Rio Grande, ſo that the reſt, under the command of Mr. Bas, being five hundred in number, might be hourly expected at the Receif. He further adviſed, that he had ſeen no enemy of late, but being informed that a conſiderable body lay encamped in a valley near the village of Magarebbe, he had ordered thither one hundred and twenty ſoldiers, and one hundred Brazilians, to beat up their quarters, and to get ſome priſoners. In effect the 4th of March, he, with his troops conſiſting in five hundred men, arrived from Rio Grande at the Receif, and the 5th of March gave the council an account of his expedition.

The 9th of March in the night, the enemy appeared in three bodies near the fort Prince William, and gave us ſeveral volleys of ſmall ſhot, but being anſwered with our cannon, retired immediately. The ſame day a party of fifty men were ſent abroad under Lieutenant Mos to get intelligence; being met by two companies of the enemy, a ſharp encounter enſued, our forces retiring without any conſiderable loſs, under the fort Wardenburgh, and the enemy retreated at the diſcharge of ſome of our cannon. By letters from Mr. Linge, dated the 8th of March, at fort St. Margaret in Parayba, the council received the unwelcome news that the enemy in Rio Grande had by a pretended flight drawn the 5th of March Lieutenant John de Vael with forty-eight ſoldiers, who were too eager in the purſuit of them, into an ambuſh, where they had killed thirty of them, though, according to the report of ſome deſerters that were preſent at the engagement, not without conſiderable loſs alſo on their ſide; Kamaron, Andrew Vidal and ſome other Portugueſe officers of note, were alſo preſent. About the ſame time fifteen Brazilians ſurpriſed five men, ſix women, and eight children, in an entrenchment, ſeven leagues above Iguaraku, called Papeku.

In the meanwhile the Tapoyers, who according to their cuſtom come once a year, about Midſummer, from among the mountains, ſome hundreds ſtrong, into the captainſhip of Rio Grande, were, after they had carried away all the horſes and mares they could light on, retired to the hills; a thing very fortunate for us, for without it our garriſons would not have been able to ſubſiſt there. Proviſions growing every day ſcarcer in the Receif, it was agreed the 6th of March by the council, to ſend the Brazilians raiſed in Rio Grande with a company of fuzileers to Itamarika, to eaſe our magazines of that burthen, whilſt they might provide themſelves with farinha-roots in that iſland. Much about the ſame time the two majors Bayert and Piſtoor, appeared before the council, intimating, that being informed that the citizens began to murmur at their ſtaying at home, pretending that they were ſufficient to guard the forts; for which purpoſe, as it was reported, Admiral Lichthart had offered three hundred men, they were come on purpoſe to offer their ſervice, and were ready to take the field with thoſe few forces they had left in the garriſons; though they at the ſame time proteſted, that they were of the ſame opinion, which had been approved ſome days before, to wit, that this undertaking, by reaſon of their ſmall number, would be full of danger, and yet not anſwer the end of bringing proviſions into the Receif. Admiral Lichthart being thereupon aſked whether he had made any ſuch offer, he declared not to have ſpoken any thing like it, his ſhips being ſo ill manned, that he could ſpare no men for any other ſervice.

The night before the 13th of March, the enemy appeared both on the other ſide of the river and the dike leading to the fort Bruin, diſcharging their muſquets and blunderbuſſes at our centinels, but upon the firſt ſalute from the cannon of the fort retired. The ſame they did near the fort of Aſſagados. The ſame evening betwixt nine and ten o'clock they made an attack upon the wooden fort, built betwixt the Aſſagados and the Quinquangular fort, for the defence of the plain, which they continued until one o'clock, cutting down ſome paliſadoes, and bringing great ſtore of dry reeds, in order to ſet it on fire, but in vain, being forced to retreat with the loſs of ſome of their men; on our ſide two were killed, and four or five wounded, among the laſt was Lieutenant Caſper Ferdinand Van Grol, who received two dangerous wounds. The next morning the broken paliſadoes were repaired, and another row ordered to be ſet beyond the firſt, and foot-angles to be laid betwixt both. The 17th of March the bark called the Parayba coming from Siara, brought advice, that the Braziliens were gone from Siara to Komeſi, having refuſed to return to Rio Grande,

for

for fear they ſhould be called to a ſevere account there for the murder of ſeveral inhabitants, committed by them before.

By the ſame bark Mr. Linge ſent advice from the 14th of March, that the enemy had appeared of late in a conſiderable body near the northern fort, but was retired now, but whether to Rio Grande or St. Andre, he was not able to tell. They had ſpoiled all the farinha-root fields in the Aldeas Magarebbe, and thereabouts; ſo that the Brazilians being for the future to be furniſhed with proviſions out of the magazines, he deſired a ſupply of wine and oil: immediately advice thereof was ſent to Dortmund commander-in-chief of Itamarika, and ſome ammunition, beſides one thouſand gilders in ready money. The ſame ſum was tranſmitted to Mr. Linge in Parayba, and a barrel of oatmeal, a pipe of wine, a hogſhead with oil, and another filled with dry peaſe, beſides good ſtore of ammunition. He was alſo ordered to ſend the Brazilians back to Rio Grande for defence of that captainſhip, and to get intelligence whether the enemy had directed his march thither, in order to oppoſe his deſign.

In the meanwhile, Admiral Lichthart (purſuant to his letter of the 21ſt of March to the council) had embarked ſome ſoldiers and Brazilians in Itamarika, and taking his courſe to the north entrance of the river, was got up as far as to the iſle of Tapeſco, from whence they had brought back a great quantity of farinha-roots, for the uſe of the Brazilians in Itamarika, and of the magazines there.

The 30th of March it was reſolved, with the approbation of Admiral Lichthart, to ſend the following ſhips a cruiſing before the Bahia; the Uliſſingen, the Ter Veer, and the yachts the Greyhound, the Heemſtede, Sprew, and Bulleſtraet; and on the 6th of April, the Swan, the Zouteland, the Flight, and the yacht the Lichthart, were ordered to go a-cruiſing before the cape of St. Auſtin, and ſet ſail the 10th of April accordingly.

The 31ſt, letters were brought to the council, dated the 25th of March, in Rio Grande, intimating that Paulo de Kunha and Kamaron were entered Kunhao with eight hundred men, among whom were three hundred muſqueteers, to carry away the cattle from thence to Parayba.

But, according to Colonel Garſman's letters to the council, upon his arrival, which was the 4th of April, the enemy were already retired out of Rio Grande, without undertaking any thing againſt our people, who, conſiſting only in four hundred ſoldiers and three hundred Brazilians, lay encamped near the houſe of John Leſtan, yet they carried off ſome cattle.

About the ſame time they received letters from Mr. Linge, that the enemy had made ſeveral falſe alarms near the forts, without attempting any thing. And, in effect, in June, they did not appear any more thereabouts.

In the year 1646, the 5th of March in the night, Jacob Rabbi was, at the inſtigation of Lieutenant-colonel Garſman, near Potoſi, about three leagues diſtant from the caſtle of the ſame name, villainouſly ſhot with two bullets, as he was going home from one John Miller's houſe, where he had been entertained that evening in company with Colonel Garſman. Rabbi had a conſiderable time before (as he had declared to his friends) ſuſpected the treachery of Garſman, and was for that reaſon juſt upon his departure out of Rio Grande, in order to ſhelter himſelf among the Tapoyers. The council reſented this villainy to the higheſt degree, ſince, conſidering that this Jacob Rabbi was in great eſteem among the Tapoyers, and his wife a Brazilian, it was to be feared, that this would exaſperate both the Tapoyers and Brazilians againſt us. So that Garſman returning the 19th of March to the Receif, after he had given an account of his expedition to the council, was, by their particular order, the 24th of

March, taken into cuſtody, and ſent on board the Hollandia, Major Bayert being ordered in the mean-time to ſupply his place. This Jacob Rabbi, a native of Germany, had been employed by authority of the ſtates-general, His Highneſs the Prince of Orange, and the company, to engage and keep the Topayers in the intereſt of our government; in which commiſſion he had acquitted himſelf ſo well, that he brought theſe Tapoyers ſeveral times, out of the mountains (their habitations) to our aſſiſtance. His dwelling-place was in the fort Keulen, in Rio Grande, where he had married a Brazilian woman. Gaſper Honyhouſe, commander of the Brazilians in Itamarika, being ſlain in the laſt engagement in that iſland, Mr. Vincent Van Drillenberg was, at their requeſt, conſtituted their commander by the council.

The 17th of April, ſome papers were delivered to the council, which had been diſperſed by the enemy, to debauch our ſoldiery; in return of which, they ſent abroad their ſummons, upbraiding each of their ſubjects as were in the enemy's ſervice, with treachery, and exhorting them to return to their duty. It was alſo agreed to publiſh a copy of a letter delivered by the Portugueſe ambaſſador at the Hague, to the ſtates-general, from the King his maſter; with the anſwer of the ſtates to the ſaid letter: for ſince the King of Portugal in this letter did diſown the war, and the proceedings of Antonio Telles de Sylva, and his ſending of his troops into the Dutch Brazil, they did not queſtion but by this means to open the eyes of the Portugueſe inhabitants, not to flatter themſelves with vain hopes of aſſiſtance from Portugal; beſides, that we were in hopes thereby to ſow the ſeeds of miſtruſt betwixt them and the Portugueſe commanders from the Bahia.

The 24th of April, two Portugueſe companies, commanded by Captain Lawrence Karnero and Peter Kavalkanti, conſiſting of about forty men each, marched from the Vergea and the city of Olinda to Iguaracu.

They were headed by Vidal and Hoogſtraten in perſon, who having got intelligence that Admiral Lichthart and John Nicholſon were gone to Itamarika, to get ſome farinha-roots. The 25th of April, as they were marching from Iguaracu, a certain German ſurgeon, named Chriſtopher Mars, who was formerly taken priſoner by them, happening to ſtay ſomewhat behind, whilſt he was ſtopping, was ſurpriſed by one of our parties near Tapaſino. Upon examination by Mr. Walbeck, he declared, that not long ago there were nine companies of the enemy's forces quartered in the Baretta, the city of Olinda, and in the mills of Bierboom and Brito; each company conſiſted of betwixt forty or fifty men. That there were five companies more, much of the ſame ſtrength, poſted in the Salinas; and Henry Dias, with two hundred mulats and negroes in Gaſpar Cox's houſe, but they had then no forces in the Vergea.

That after Nicholas Nicholſon was come over to us with his troops, Martin Soares Moreno had cauſed two hundred and ſixty Dutch, both ſoldiers and inhabitants, (among whom were ſix women and two children,) to be killed by a company of the country-militia, in the woods of Tabatinga, betwixt Sibero and Deriba, in their way to the Bahia, beſides thoſe killed by his order in other places, amounting in all to three hundred.

By this time there began to be great ſcarcity of meat in the Receif, notwithſtanding which, the garriſons in the outworks, as well as the Brazilians in Itamarika, with their wives and children, were to be ſupplied from thence; and the farinha roots being either all taken up before by our own people, or elſe deſtroyed by the enemy, in the iſland of Itamarika: to ſupply this preſſing neceſſity, it was reſolved by the great council, to ſend a detachment of four hundred men in barks to St. Lawrence de Praja

or Tujukapa, to fetch mandinka or farinha-roots from thence. This detachment was compoſed out of theſe following troops:

Out of Captain Nicholas Nicholſon's company, nine men.
From the Quinquangular fort, twenty-five.
From the Affagados, twenty-five.
Out of the company of Captain William Lambartz, fifty.
Volunteers from Itamarika, thirty.
Brazilians, one hundred and fifty.

The 29th of April the council was, by letters from Itamarika, advertiſed, that our forces being ſent abroad to fetch ſome farinha, had chaſed the enemy out of two or three entrenchments; but retiring into another, ſurrounded with a deep ditch, they were there alſo, with more courage than conduct, attacked by our troops, being forced to retire, with the loſs of ſixteen killed and twenty-ſix wounded, among whom was Captain William Lambartz: the enemy had likewiſe not a few killed on their ſide. Mr. Dortmund, commander-in-chief of Itamarika, therefore deſiring to be ſupplied with meal, his magazines being quite exhauſted, the council ſent thither, the 1ſt of May, twenty barrels with meal, two with oatmeal, two with dry peaſe, beſides a pipe of wine and brandy, and one thouſand gilders in money, for the uſe of the Brazilians.

The 3d of May the council received advice, by a letter dated the 2d of May, from Mr. Dortmund, that the enemy had carried away ten negroes, four belonging to the company, the reſt to one Mr. Seulin, and four other men from Itamarika; and that the Brazilians there had been ſo far debauched by their intrigues, that they retired into a wood, and being twice ſummoned to rejoin our troops, had refuſed ſo to do. That at laſt Mr. Appriſius (miniſter of the Brazilians) having been ſent to reduce them to their duty, either by perſuaſions or threats, his arguments were ſo prevailing, that they returned quietly, alledging for their excuſe, that they were forced to fly thither for want of ſubſiſtance. Hereupon Dortmund deſired freſh ſupplies for his magazines, that a perſon of authority might be ſent thither, and that another company might be put in place of that of Captain Voſterman, his men being ready to revolt.

To remove all theſe obſtacles, it was reſolved immediately to diſpatch thither Mr. Bulleſtraet, a member of the great council, who was to agree with certain private perſons to provide our garriſons with fiſh, and to act in every thing there as he ſhould find it moſt expedient for the ſervice of the company.

Accordingly, Mr. Bulleſtraet ſet ſail the 4th of May, in the yacht the Greyhound, and arrived the ſame day in the afternoon in Itamarika; where, having executed his commiſſion, he returned the 10th of May to the Receif, and gave the following account to the council: that he had taken a view of the city of Schoppe, and the fort Orange, both which he had ordered to be ſtrengthened; as alſo, to fortify the old brick-houſe, formerly the ſtadthouſe, with paliſadoes againſt any ſudden attempt; that he having called before him all the commanders of the Brazilians, had repreſented to them that we were in daily expectation of a powerful ſuccour from Holland, exhorting them to remain ſtedfaſt in their duty, and to keep their ſoldiers under the beſt diſcipline they could; he had alſo preſented their commander with cloth for a ſuit of clothes, and the reſt with ſome wine and money, which they very thankfully accepted: he had *en paſſant* taken a view of the plantations of Conradt Pauli, where he had found about one hundred and ſixty cocoa-trees cut down by the Brazilians, being forced by famine to feed upon the fruit; the like they had done in ſeveral other places; that he had endeavoured to treat with ſeveral private perſons for a certain quantity of

fiſh

fiſh to be delivered at the Receif, but could meet with none that would accept his offers; they alledging, that moſt of their negroes being either run away or taken by the enemy, they did catch no more fiſh but what they could readily ſell in the iſland, without the charge of ſalt and tranſportation; that he had likewiſe propoſed to the commander-in-chief of the Brazilians, to give them for the future money inſtead of meal; and that they were to be furniſhed with three nets to catch fiſh for their own uſe; that the commander promiſed to propoſe it to the reſt, and gave him ſome hopes that they would accept of the ſaid offer.

To ſupply the preſent want of proviſions, which began to be ſcarcer and ſcarcer every day in Itamarika, Parayba, Rio Grande, and the Receif, by reaſon that the expected ſupplies from Holland were not as yet arrived, and we were cloſely blocked up by land; it was thought fit to give all imaginable encouragement to the fiſhing trade; for which purpoſe the two members of the great council, Mr. Hamel and Mr. Bas, ordered, the 7th of May, to buy up as much yarn as poſſible could be got, to make fiſhing nets of, which afterwards ſtood us in good ſtead.

A certain Portugueſe, who had committed man-ſlaughter in Angola, and was fled from thence to the Receif, having accuſed John Vieira d'Allegoas, he was by order from the council taken into cuſtody.

This Portugueſe declared, that the ſaid Vieira had delivered to him a certain piece of parchment, written in characters, and a box, wherein were ſeveral other papers, in order to carry them to the enemy, which parchment and box he produced in the preſence of the members of the council. John Vieira denying the matter, was put to the rack, but continued reſolute in his denial; till at laſt the key of theſe characters being found among his papers, and a certain Jew having uncyphered theſe letters, it appeared that he had given an account of the whole poſture of our affairs to the enemy, with directions how to make themſelves maſters of the Receif; ſo that finding himſelf diſcovered, he confeſſed that he had written and delivered theſe cyphered papers to the Portugueſe; and was executed the 29th of May.

The magazines being by this time almoſt exhauſted, there being ſcarce proviſions left for a few weeks, it was propoſed by the council to the majors Bayert and Piſtoor, that conſidering it was not adviſeable to exaſperate the ſoldiery at this juncture, by retrenching their allowance of bread and other eatables, whether inſtead of a pound of meat, they might not be prevailed upon to take ſixpence, by this means to preſerve that ſmall ſtore of fleſh they had left; which theſe two majors undertook to propoſe to the ſoldiers, not without hopes of ſucceeding in their project. And that nobody might be exempted from bearing his ſhare in the public calamity, it was ordered that the loaves which uſed before to weigh a pound and a half, ſhould be reduced to one pound weight, and that each citizen and others depending on the company, nay the members of the great council themſelves, ſhould have an allowance only of two loaves per week; the ſame was to be given to all ſeaman, captains, lieutenants, and enſigns; but the reſt, from the ſerjeant to the common ſoldier, ſhould have three pounds of bread allowed them per week.

Mr. Linge adviſed from the 1ſt of May, out of Parayba, that the enemy had not attempted any thing againſt the forts, and that a party of Brazilians was gone abroad towards Tapoa, in hopes to take ſome priſoners. Much about the ſame time the council received advice, that Colonel Garſman, without orders from the council, had endeavoured by ſome preſents, to draw the Tapoyers into Rio Grande, under pretence of keeping them at hand, to enter into a confederacy with the new members of the great council that were expected from Holland. The council being not a little ſurpriſed at this

this undertaking, ſince by the coming of the Tapoyers into that captainſhip, they ſhould be diſappointed of a conſiderable part of thoſe ſupplies they received from thence; they ſent word to Rudolph Barro to leave no ſtone unturned to draw the Tapoyers by fair means back to their habitations; but that if they would ſend ſome of their commanders to the Receif, all imaginable ſatisfaction ſhould be given them concerning the murder of Jacob Rabbi; and the more to engage Barro to do his utmoſt, a preſent of wine, brandy, and ſome toys, was ordered to be ſent him. For as the caſe then ſtood, it was abſolutely neceſſary for us to remain maſters of Rio Grande, till the arrival of the ſuccours from Holland; the vaſt numbers of Brazilians that were fled to Itamarika, having conſumed all ſorts of proviſions there to that degree, that that iſland could not only not ſend any ſupplies to the Receif, but moſt of the women and children of the Brazilians muſt be ſupplied out of the magazines there; ſo that Rio Grande was the only place left from whence they received a conſiderable quantity of farinha and cattle; which in ſome meaſure abated the ſcarcity of proviſions in the Receif, and by the prudent conduct of the council, was the chief means that the place continued in tolerable good health till the arrival of the ſuccours, which without it, it would in all human probability have been impoſſible to be done; and no queſtion but this captainſhip might for a conſiderable time after, having furniſhed the garriſons to the ſouth with neceſſaries, had it not been for the following accident.

The expected ſuccours from Holland being detained by the winter-ſeaſon and contrary winds, the Brazilians of Goyana, who with their wives and children had ſheltered themſelves in Itamarika, were reduced to the greateſt extremity for want of food; for after they had conſumed all what the iſland could afford for their ſubſiſtence, and all the avenues by land being blocked up by the enemy, they had no other ſupplies but what they received from our magazines: theſe being now exhauſted to ſuch a degree, that each citizen had but one pound of bread allowed him per week (which however at that rate would not hold out above fourteen days longer), the council was under an abſolute neceſſity to have it propoſed to the Brazilians, to retire with their wives and children (in all about twelve hundred) to Rio Grande, where they might ſubſiſt ſome time upon what the country afforded. Accordingly they writ to Mr. Dortmund the 1ſt of May, and ſent Mr. Walbeck thither in perſon, to perſuade the Brazilians to ſend at leaſt five hundred women and children, with a certain number of their men, to Siara and Rio Grande, there being at that time in all near fifteen hundred Brazilians, men, women, and children in that iſland, among whom were only five hundred fit to bear arms, under the command of Caſpar Honyhouſe, who had each ſcarce a pound of bread allowed them per week.

Proviſions, as I told you before, growing daily ſcarcer and ſcarcer, by reaſon the ſuccours from Holland were detained beyond all expectation, by contrary winds; a general council was called, where the three members of the great council, Mr. Hamel, Mr. Bulleſtraet, and Mr. Bas, being preſent, as likewiſe Admiral Lichthart, and the two Majors Bayert and Piſtoor, the following points were taken into debate.

Firſt of all, the ſending of the Brazilians from Itamarika to Rio Grande being looked upon as unavoidable, immediate orders were given to get the neceſſary tranſport veſſels ready for that purpoſe. It was alſo taken into conſideration, whether it were not feaſible to gather a ſufficient force out of the forts, who in conjunction with the Brazilians might attack ſome place or other, from whence to provide ourſelves with farinha; but to this it was objected by the Majors Bayert and Piſtoor, that the garriſons of the forts could not be weakened by any detachment, without running a great hazard; beſides that it was a hard matter to pitch upon any place where there was any

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ſtore of farinha, the enemy having either conſumed, ſpoiled, or carried it away before; ſo that we muſt expoſe our men to an apparent danger, without a ſure proſpect of intereſt; for, ſuppoſing we ſhould be ſucceſsful, the quantity that might be got, would not be ſufficient to maintain our garriſons for any conſiderable time. It was however agreed to take an exact account of all the garriſons, to ſee whether upon an occaſion ſomething might be undertaken for the ſervice of the ſtate. Accordingly theſe two majors, Bayert and Piſtoor, having preſented a liſt of theſe forces the next day to the council, it was concluded that no troops could be ſpared out of the forts, except it were out of the Aſſagados, but they were but few in number. At the ſame time it was reſolved to ſend Captain Niger with his company of Brazilians to Rio Grande, and the Omlandia and Greyhound yacht were ordered forthwith to ſail to Itamarika, to tranſport the Brazilians to Rio Grande.

The 30th of May the council, the admiral, and two majors, entered into a ſecond debate, whether it were poſſible to attack the enemy, and in what place: againſt which it was alledged, that their chiefeſt force was at preſent in the Vergea; but ſuppoſing it was not, no farinha was to be got there, becauſe they were ſupplied with it themſelves from far diſtant places. That the farinha-fields neareſt to the Receif were about St. Lawrence, at leaſt five leagues from thence; that the neareſt farinha-fields to the ſouth were about St. Antonio and Moribeca, where, by reaſon of the ſtrength of the enemy and the great diſtance from us, there was no probability of incompaſſing our deſign; and that the farinha-fields to the north were likewiſe at ſuch a diſtance from the ſea-ſide, as could not in any likelihood anſwer our expectation. It was farther taken into conſideration, whether ſome forces might not be ſpared in Itamarika, but it was carried in the negative; becauſe ſince the Brazilians were ready to depart for Rio Grande, it was not adviſeable to expoſe the reſt of our troops there to a hazard. After ſerious deliberation, what forces poſſibly could be raiſed out of the forts (their places being in the meanwhile to be ſupplied by the inhabitants), it was found that the Aſſagados could furniſh about ſeventy or eighty men, the Quinquangular fort and Maurice's Town, the ſame number, and that of St. Antonio Vaez about fifty. But, conſidering that the city-militia of the Receif conſiſted only of ſix companies of ſeventy or at the moſt eighty men each, and that they were obliged to be upon the guard every night there (the place being without a garriſon), if a conſiderable number of them ſhould be employed in the forts, this muſt needs expoſe the capital place, which the enemy chiefly aimed at, to an imminent danger. The ſeamen being not above two hundred and fifty in all, could likewiſe not be employed in that ſervice, unleſs we could leave our ſhips quite unmanned and uſeleſs. So that after many arguments on both ſides, it was agreed to chuſe the ſecureſt way, and according to the orders of the council of Nineteen in Holland, to expect the ſuccours from thence with patience, and in the meanwhile to provide for the ſecurity of our forts.

The ſame day the council received letters from Mr. Walbeck, that ſome of the Brazilians of Itamarika had deſerted, a rumour being ſpread among them, that we intended to leave them to the mercy of the Portugueſe, which had put all the reſt into a great conſternation, but that Mr. Dortmund had convinced them to the contrary. Mr. Walbeck and Dortmund had in the meanwhile repreſented to the Brazilians, that they being many in number, and conſequently very ill provided for at this juncture, whether it were not beſt for them to go for ſome time to Rio Grande. They were at firſt averſe to his propoſals, for fear of being deſerted by us, nevertheleſs the urgent neceſſity of providing for their ſuſtenance, and to ſhew their compliance with the government's orders,

orders, were ſo reconciled with them, as to reſolve to go to Rio Grande, provided they might be furniſhed with convenient tranſport-ſhips, proviſions, and ſome ammunition for their defence, and fifty men of regular troops. Mr. Dortmund having again ſolicited for proviſions, ſome were ſent (ſufficient for fourteen days) immediately, with ſome gun-powder, bullets, and other ammunition.

Accordingly above one thouſand two hundred Brazilians, moſt women and children, whoſe huſbands and fathers had been ſlain in our ſervice, embarked aboard the Omlandia and ſome yachts, a pound of ſalt cod-fiſh being allowed to each for the whole voyage without bread. At their arrival in Rio Grande they were ſo emaciated by famine, that they appeared more like dead carcaſes than living bodies, and laid hold of every thing they could meet with to ſatisfy their greedy ſtomach, ſo that in a little time they conſumed all the farinha that was left there.

Mr. Linge, by his letters from the 25th of June, ſent advice to the council, that there appeared no enemy at that time in Parayba, but that ten Tapoyers, vaſſals of king John Duwy, being come into Rio Grande, had ſhewn themſelves extremely diſſatisfied at the murder of Jacob Rabbi, whereupon it was reſolved to reconcile that king to our intereſt by the following preſents:

Two hundred gilders in ready money.

One thouſand ells of Oſnaburg linen-cloth.

One hundred gallons of Spaniſh wine.

Two caſks of brandy.

Forty gallons of oil, and a barrel with powdered beef.

The Brazilians in garriſon in the fort the Bruin, the Quinquangular, and ſome other forts, being diſſatisfied at their being detained there for eight months laſt paſt, petitioned the council the 12th of June, to be ſent back into Rio Grande.

The opinion of the two majors being aſked thereupon, they adviſed, that conſidering they did no extraordinary ſervice there, they might well be ſpared; ſo that it was reſolved the 14th of June in council, to pay them their arrears, and to ſend them back to Parayba and Rio Grande, to inhabit their villages as before.

In the Quinquangular fort, the company of Immanuel Barros was ordered to keep guard inſtead of the Brazilians, who were commanded to depart the 20th of June. The 11th, 12th, 13th, and 14th of June, the enemy ſhot in the night-time very fiercely againſt the fort de Affagados, a redoubt called Kirk, and the houſe Boaviſta.

The 15th of June it was propoſed to the council by Admiral Lichthart, and the two majors, Bayert and Piſtoor, to beat up the enemy's quarters in the houſe of Immanuel Kavalkanti, and in the Baretta, with the following troops:

The company of Captain Killian Taylor, forty men.

The company of Captain Nicholas Nicholſon, of ſeventy men, which were to be joined by Captain de Niger with thirty men out of the fort Frederick, with Lieutenant Mos from the fort Erneſtus with ten men, and Lieutenant Katnar from the fort Prince William with twenty men.

In all two hundred men.

About one hundred volunteers were ſuppoſed to be raiſed from among the citizens, under the Colonel Walbeck; and Immanuel Baros with his negroes, conſiſting in fifty men, theſe joined with the other two hundred, would make up a body of three hundred and fifty men, to be commanded in chief by Major Piſtoor, and to be conducted by ſea by Admiral Lichthart to their landing-place, viz. the regular troops to the ſouth of the Baretta, and the negroes upon the iſland on the north-ſide, from whence they might break through the marſhes to the Affagados, and ſo further to the houſe croſs the

river, where they were to make a falſe attack, whilſt the troops landed at the Baretta aſſaulted them from before; the admiral, with his tranſport veſſels, to lay ready all this while to receive them, and to ſecure their retreat upon all occaſions. This propoſition being approved of by the council, partly to animate our ſoldiers, partly to get at leaſt ſome proviſions for the ſick, it was reſolved to be put in execution the next day, but the wind proving contrary, and afterwards the tides being unſeaſonable for the convenient landing of our men, this project was laid aſide, eſpecially when inſtead of one hundred volunteers ſcarce twenty-five offered themſelves for this ſervice, notwithſtanding the council gave them all imaginable encouragement, by promiſing them to receive the ſame treatment as the other ſervants of the company had, in caſe they ſhould be wounded or come to ſome other misfortune.

In the meanwhile, the enemy having been informed by ſome of our deſerters, that by the departure of the Brazilians from Itamarika the garriſons there were much weakened, they thought fit to lay hold of this opportunity, to land ſuch a force there, as ſhould be beyond our power to drive from thence. The 15th of June, with the break of day, they ſurprized our ſpy-ſhip there, called the Sprew, with ſeveral barks and boats at the entrance called Paſſoos (Markers); they got three priſoners, the reſt eſcaping with the loſs of two of their comrades killed.

The ſhip before Tapaſima was ſet on fire by our own people, leaving the galiot that lay hard by, to the enemy, after they had taken out all her men, who went aboard the yacht called the Golden-Doe, lying before the north entrance. They landed with about two thouſand men in ſhalops and other tranſport veſſels, and Andrew Vidal and John Ferdinand Vieira wrote the ſame night the following letter to Mr. Dortmund, commander-in-chief of Itamarika, which they ſent by a boy they had taken priſoner in the Sprew:

Their Letter to Mr. Dortmund.

"Moſt honourable and moſt brave,

"You are doubtleſs not unacquainted with the reſolution of the inhabitants of this country to retrieve their former liberty; to effect which they neither want power nor any other means; but their chief aim being to encompaſs their deſign without effuſion of blood, we thought fit to let you know that we are ready to attack you in this iſland with all our forces, unleſs you will prevent it by a treaty. For being ſenſible that you are paſſed all hopes of relief, we were willing to adviſe you to treat with us, according to the cuſtom of war uſed in ſuch caſes; that in caſe hereafter things ſhould fall out contrary to our expectation, by the fury of the conquering ſword, you may not lay the fault thereof at our doors; for which reaſon it is, that we offer to you and the reſt of the commanders there, all their arrears due to them from the company. Whereupon we expect your anſwer to-morrow.

"From our head quarter, June 15, 1646. ANDREW VIDAL DE NEGREIROS.
JOHN FERNANDES VIEIRA."

The 17th of June the council received advice from Mr. Dortmund of their landing, deſiring prompt ſuccours, without which he would not be in a condition to maintain the iſland againſt them. It was therefore taken into debate, whether it were poſſible for us to bring together ſuch a force, as without much hazard might be able to force the enemy from thence; but it was carried in the negative.

For

For it was alledged, that without manifeſt danger not above two hundred ſoldiers could be taken out of the forts of the Receif, which number was not ſufficient to attack the enemy, who had already intrenched himſelf there, with hopes of ſucceſs: and, conſidering that theſe forces muſt be tranſported thither by ſea, we wanted ſhips (there being at that time not above two barks at the Receif) both to convey them thither, and to cut off the communication with the continent to the enemy. Beſides, that at leaſt fourteen days proviſions were required for this expedition, in caſe the enemy ſhould ſtand his ground, which at this juncture was not to be done, unleſs we would leave the magazines of the Receif quite empty; there being then no poſſibility of attempting its relief. The next thing under conſideration was, whether the intrenchments on the hill might be defended or not? Againſt the maintaining of it was objected, that without freſh ſupplies of proviſions this fort could not hold out a week, eſpecially ſince the enemy, by cutting off the pipes of the ſpring that furniſhed them with freſh water, would ſoon put them under a neceſſity of coming to ſurrender; when it was evident, that they might poſt themſelves betwixt the fort of Orange and this hill, and conſequently prevent their receiving any ſupplies from thence.

Beſides, that the hill, being of a conſiderable compaſs, was the more difficult to be maintained by our forces, the fort itſelf being irregular, and but ſlightly fortified on that ſide, eſpecially where the old church-wall, making up part of the curtain, would not be proof againſt the enemy's cannon, and conſequently expoſe the whole fort, with the garriſon, to the mercy of the enemy: ſo that it being beyond all diſpute in the enemy's power to cut off all communication with the fort Orange, it was unanimouſly reſolved and ordered to leave the ſaid intrenchments, and to retire with the garriſon, and what proviſions and ammunition they had, into the fort Orange, before their retreat was ſtopped by the enemy's troops; it being paſt all doubt, that in caſe they could maintain themſelves in that fort, they could at all times, if they were maſters of the field, recover the hill and the whole iſland.

The council were the more forward in coming to this reſolution, becauſe they had received certain information, that the enemy, who knew the importance of the fort Orange, had gained ſome of the gunners and volunteers of the fort by preſents, who had engaged to aſſign them a place where it was eaſieſt to be attacked, whereabouts they were to charge the cannon with gun-powder only, to facilitate their attack. Two of the gunners were hanged the 23d of June for this treachery; the reſt made their eſcape to the enemy. For the better preſervation therefore of this fort, our people left the entrenchments upon the hill the 21ſt of June, where the enemy poſted a ſtrong body of their troops immediately after. The council likewiſe ordered the yacht the Heemſtede to cruize in conjunction with the Golden-Doe, before the north entrance of the iſland, to keep open free communication for us with our garriſon, and to prevent the enemy from receiving any ſuccours that way; and at the ſame time ſome proviſions were ſent thither for the uſe of the garriſon.

But whilſt things were thus tranſacting with various fortune, though for the moſt part to our diſadvantage, and the ſo long expected ſuccours from Holland not arriving, the want of neceſſaries encreaſed more and more every day in the Receif to ſuch a degree, that whatever was found fit for ſuſtenance, either in the public magazines, or with private perſons, was applied to the common uſe, which however amounting to no more than one pound of bread a-week for each ſingle perſon, many died for hunger; their legs beginning to ſwell firſt, which was the fore-runner of certain death; cats and dogs, of which we had great quantities, were looked upon as dainties at that time; and you might ſee the negroes digging the half-rotten bones of dead horſes out

of the ground, and to gnaw them with incredible eagerneſs; neither was the want of freſh water leſs inſupportable, by reaſon of the heat of the climate, and the conſtant uſe of ſalt meats, all ſprings that were dug being brackiſh. The poor ſlaves, who had the leaſt ſhare of what was left, looked ſo ghaſtly and wild, with their eyes and jaws ſunk, as appeared terrible to the moſt undaunted of men. At laſt (notwithſtanding all the care taken by the council) things came to that paſs, that the allowance of one pound of bread per week was fain to be taken away from the inhabitants, and allotted the ſoldiers; who, by the enticements of the Portugueſe beginning to deſert apace, had two pounds of bread allowed them, as long as there was any left; but when all was ſpent, and no remedy was to be found againſt this lingering evil, it was propoſed by the council, and unanimouſly reſolved, rather to die bravely than ſtarve, and to fight their way through the enemy. The ſoldiers were to lead the van, the women, children, ſick, and other unable people to keep in the middle, and the members of the great council, with the inhabitants, to defend the rear. The Jews were above all the reſt in a deſperate condition, and therefore reſolved rather to die with ſword in hand than be burnt alive, which is their doom in Portugal.

But when we were juſt reduced to the laſt gaſp, all horſes, cats, dogs, and rats being conſumed, and a few quarterns of farinha ſold at the rate of betwixt eighty or ninety gilders per quartern, which however could not ſuffice for above two days longer, on the 22d of June (a day never to be forgotten) we ſaw two veſſels with Dutch colours making all the ſail they could towards the Receif; they had no ſooner caſt their anchors, and given us the ſignal by the diſcharge of three guns each, that they came from Holland, but you might have read in all our faces the ſudden joy we conceived at this relief in our laſt extremity; there was nobody that could ſtand upon his legs for want of bread, but did crawl to the harbour, where you might hear the cries of the people weeping for joy at a great diſtance. Theſe two ſhips, called the Falcon and Elizabeth, were freighted for the chamber of Amſterdam, and had left the Texel the 26th of April; they brought us the welcome news, that we might hourly expect the whole convoy. The captain of the Elizabeth told me himſelf, that having a very fair wind one day, he ſaid to his crew; "I am ſure they are in great extremity at the Receif, God ſend us fair wind and weather to relieve them in time," which happened thus accordingly. The captains were each preſented with a gold medal, with the following inſcription; "The Falcon and Elizabeth did relieve the Receif."

The 23d of June, Mr. Bas, a member of the council, was ſent to Itamarika, to aſſiſt in the defence of the fort; by his letters of the 28th he adviſed that the enemy continued ſtill in his poſt on the hill, and that he had ſent abroad ſome ſpies to get intelligence. The 7th of July, the ſaid Mr. Bas returned to the Receif with the companies commanded by Captain Bluecock and Conrad Held, leaving the two companies of Reinard Sikkema and Dignus Byſterman there in garriſon. The enemy had ſome days before, after having blown up the fort on the hill, and ſet fire to their camp, left the iſland, carrying along with them all the cannon, and among them two braſs ones. For when they ſaw that we were reinforced with ſeveral ſhips from Holland, they did not think fit to abide there till we ſhould ſtop their paſſage back by our veſſels; neither were they inſenſible, that without being maſters of the fort Orange, they could not promiſe themſelves the poſſeſſion of the iſland, the ſouth entrance being commanded by the ſaid fort, and the north paſſage by our yachts.

The 29th of June, the council received advice from our head quarter at the houſe of John Leſtan, in Rio Grande, that two ſons of king John Duwy, with twenty-three Tapoyers, were ſent thither by their father, to aſſure our people of his good inclination

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and ſervice; but they refuſed to come into the fort Keulen before they had ſpoken with Rudolph Baro, who had been ſent for upon that account. About this time ſeveral merchants ſet out ſome privateers, but as this could not be done without great charge, and there were but few ſhips at ſea of the Portugueſe, this turned to no great account, and conſequently continued not long. A very odd accident happened to me much at the ſame time; for ſome of the labourers who were employed to unload a veſſel belonging to the company, were got ſo drunk, that they had killed a man, and hurt ſeveral others, by letting a pipe of wine fall upon them; I went thither to prevent any further diſorder, but was no ſooner entered the ſhip, when on a ſudden I found the ſilver galoons upon my coat turn black, and myſelf bereaved of my ſight, which however I recovered by degrees in a few days after, the cauſe of which I attributed to the ſtrong exhalations of the wine, that had been cloſed up for a conſiderable time before. Much about the ſame time a difference aroſe betwixt the officers of the army and the city-militia, about the chief command of the head guard in the Receif, which the city-officers laid claim to.

But to return to our ſo long expected ſuccours.

The reiterated letters from the council of the Dutch Brazil to the States-General, and the directors of our company, wherein they preſented their dangerous condition to them, had had ſuch an influence upon the firſt, that they adviſed the directors of the company to ſend us a reinforcement of five or ſix thouſand men, and a good fleet; for which purpoſe they ſent them twenty-five companies of their regular troops, and gave leave for the raiſing as many more, as in all amounted to four thouſand land ſoldiers, beſides ſeamen and volunteers.

This fleet, conſiſting of a good number of brave ſhips, was ready to ſail in November 1645, but by reaſon of a ſudden and hard froſt, were detained in the road of Ulieſſingen, till February 1646. One Mr. Bankert, admiral of Zealand, had the chief command of this fleet, and at the ſame time the following five gentlemen, who were appointed members of the great council of the Dutch Brazil, and were to relieve the old ones, were ſent to their ſtations there; to wit, Walter Schonenburgh preſident, Michael van Goch penſionary of Ulieſſingen, Simon van Beaumont fiſcal of the city of Dort, Henry Hacks, and Mr. Trowens, two great merchants of Amſterdam, and Mr. Heremite a lawyer of Dort, their ſecretary. One Sigiſmund Schoppe, formerly under Count Maurice, and who had commanded the land forces of Dutch Brazil, was now ſent in the quality of commander-in-chief of theſe forces; he was a moſt experienced captain, and who always kept a ſtrict diſcipline among the ſoldiers.

Never did any fleet ſent from Holland to Brazil meet with ſo many unfortunate accidents as this, during the ſix months they were at ſea. For within two days after they had left the Dutch coaſt, they were forced to caſt anchor in the Downs oppoſite to Newport, where they loſt two of their ſhips by ſtreſs of weather. After a ſtay of three days, the winds being ſomewhat allayed, the ſquadron under Mr. Van Goch ſet ſail again, but was in two days after again forced into St. Helen's in the iſle of Wight; three days before their arrival, a rich Dutch ſhip, valued at two millions of livres, then lately come from Brazil, was loſt among the rocks, ſo that of three hundred perſons no more than thirty were ſaved. Here they were detained by foul weather and contrary winds ſeven weeks, when another Dutch ſhip coming from Brazil chanced to caſt anchor near them, and told them, that their countrymen in the Receif were drove to the laſt extremity; nay, that perhaps the place was ſurrendered by this time, they having no more than two months proviſions left at the time of his departure. Hereupon it was reſolved to continue their voyage with the whole fleet, notwithſtaading the winds

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were againſt them, but on the coaſt near Portland were again overtaken by a violent ſtorm, in which they ſaw a Scotch ſhip with two hundred perſons in her periſh. The fleet under Mr. Van Goch came with much ado to an anchor behind a rock, where they ſtayed till the fierceneſs of the tempeſt being allayed, they proſecuted their voyage. But ſcarce were they got through the channel, juſt as they were entering the Spaniſh ſea, but a difference aroſe betwixt Mr. Van Goch and Mr. Beaumont about the flag, the Zealanders (in a council of war held for that purpoſe) allotting the precedency to Mr. Van Goch; whereas the Hollanders pretended the ſame to belong to Mr. Beaumont; but Mr. Van Goch perſiſting notwithſtanding to claim the precedency, Mr. Beaumont gave a ſignal to the Holland ſhips to follow him, and ſo bid adieu to Mr. Van Goch, who after a troubleſome and tedious voyage, in which he loſt many of his men by ſickneſs, and eſpecially the ſcurvy, he arrived the 14th of July with his ſhip in the road of the Receif, being the firſt of the five new lords of the council that arrived in the Dutch Brazil. The 31ſt of July 1646, the ſhip the Bluecock, and the Ulieſſingen of Zealand, came likewiſe to an anchor there; in the firſt came Mr. Trowens, and in the laſt Golonel Sigiſmund Schoppe.

The 6th of Auguſt the ſaid colonel gave an account to the members of the council how, purſuant to their orders, he was advanced with four hundred and fifty men as far as the fort of Olinda, to diſcover the countenance of the enemy, and to take ſome priſoners; that they had made a ſhew of attacking us, but after ſome ſlight ſkirmiſhes retired, and with a body of their troops marched through Bracer de St. Jago, to cut off our retreat; but our people forced them to retreat again with the loſs of ſeveral of their men killed and wounded; whereas we had but one wounded during the whole action, beſides Colonel Schoppe himſelf, who received a ſlight hurt on his leg.

The 8th of Auguſt the Arms of Dort, and in it Mr. Beaumont, arrived before the Receif; he was conducted the next day with all imaginable reſpect to the Receif.

The 12th, late in the evening, Mr. Walter Schonenbergh, preſident of the new council, and Henry Hacks, arrived in a bark from the north in the Receif, where they were received by all the citizens and ſoldiers in arms; they had been forced to leave their ſhip, called the Middleburgh, before the north entrance of Itamarika, as likewiſe the Dolphin, laden with proviſions on account of the chamber of Zealand, both which were ſeen the 30th of July, off Olinda; but being forced back by contrary winds, the laſt of theſe two did not come to an anchor near the Receif till the 13th of Auguſt.

The ſame day a certain negro deſerter coming to the Receif brought information that the enemy intended to erect a fort on the paſs of the Baretta, to prevent our excurſions into the open country; whereupon it was reſolved, with unanimous conſent of Mr. Schonenbergh and the whole council, as likewiſe with the approbation of Colonel Schoppe and Admiral Lichthart, to prevent the enemy's deſign by fortifying and maintaining the ſaid paſs, as being the only inlet we had left for the recovery of the whole Dutch Brazil, all the other paſſes being ſo ſtrongly fortified by the enemy, as not to be attempted without great hazard.

Accordingly the ſaid Colonel Schoppe marched the ſame night with all the forces he could bring together, ordering the boats laden with materials for the intended fortifications, to follow him the next tide. The colonel at his arrival having ſoon chaſed the enemy from thence, and poſſeſſed himſelf of the houſe of the Baretta, ſent for immediate orders to the council, to know whether he ſhould continue in that poſt all night; who, with the approbation of the new preſident Schonenbergh, diſpatched Mr. Bulleſtraet thither immediately to take a view of it, and to make his report accordingly; he returned

returned the 14th againſt night, and reported to the council that he had found the work there very far advanced already, and the fortifications in ſuch a ſtate, that they would ſoon be in á poſture of defence againſt any attempts from the enemy.

The 13th of Auguſt Rudolph Baro, who, as we told you, was ſent with ſome preſents to John Duwy, king of the Tapoyers, brought a letter from the ſaid king, dated the 1ſt of July, to the council, wherein he thanked them for the preſents, and deſired they would be pleaſed to ſend him ſome iron weapons, he being then in war with the Pojukas, and that, after he had humbled them, he would march with all his forces againſt the Portugueſe.

By this time the preſident, Walter Schonenbergh, and the other members of the new great council, being arrived at the Receif, and having delivered their commiſſions from Their High and Mightineſſes, the States-General, His Highneſs the Prince of Orange, and the council of Nineteen, conſtituting them joint-governos of the Dutch Brazil, the late members of the ſaid council; to wit, Henry Hamel, Bulleſtraet, and Peter Bas, ordered all the colleges and other perſons of note to be called together, to be preſent at the inſtalment of the future lords of the council.

Accordingly all the members of the court of juſtice, and of the finances, next the magiſtrates and commiſſaries of Maurice's Town, then the miniſters and church council, together with the ſea and land officers, the heads of the Jews, and laſt of all the factors and book-keepers of the company, being aſſembled, Mr. Walbeck told them, in the name of the council, that Mr. Henry Hamel, Mr. Bulleſtraet, and Peter Bas, had called them together, to lay down in their preſence the reins of the government, and to ſurrender the ſame to Mr. Schonenbergh, and the reſt of the lords appointed by Their High and Mightineſſes, by His Highneſs the Prince of Orange, and the council of Nineteen, for the ſupreme management of the government of the Dutch Brazil; returning them their hearty thanks for the ſervices each in his reſpective ſtation had done to the government, and for their conſtant fidelity during theſe inteſtine commotions, exhorting them to perſevere in the ſame obedience to the new council; whereupon the new preſident and other members having received the congratulations, firſt of the old council, and then of the other colleges, they from thenceforward tranſacted every thing by their own authority, though they, in all affairs of moment, took the advice of the ſaid members of the old council, during their ſtay in Brazil; for which purpoſe they deſired them, the 20th of Auguſt, to appear every day at eight o'clock at their aſſembly, and to aſſiſt them with their counſel for the better management of the affairs of the company. The 19th of Auguſt Mr. Trowens died late at night.

The 3d of September was appointed for a general muſter of all the forces in garriſon in the forts near the Receif. Mr. Heck and Commiſſary Zweers were ordered to take a review of thoſe in the fort Erneſtus, Wardenburgh, and Boaviſta; Mr. Beaumont and Moucheron in the fort of Anthony Vaez and Maurice's Town; Mr. Van Goch, Hamel, and Aldrich, at the Receif, and of thoſe belonging to the artillery; Mr. Raetsfield and Crowranger, at the Baretta and adjacent quarters; Mr. Volbergin and Commiſſary Stricht, in the forts William and Frederick-Henry; Mr. Bulleſtraet and De Witt, in the fort Bruin, and the land and ſea fort.

The 4th of September, a pardon being agreed upon by joint conſent of the old and new council, the ſame was, the 6th, ſent by a drummer to the enemy, with a letter to the Portugueſe commanders from the Bahia, deſiring them to withdraw their forces.

The 10th of September being appointed for a review of the militia of the Receif and Maurice's Town, the ſame was found to conſiſt of 700 men; they received the thanks of

of the old council for their faithful ſervices during the preſent inteſtine war, and then returned their thanks to them for the prudent management of the government.

The 13th of September, the letters written by the Portugueſe colonel the 11th of September, in anſwer to ours of the 6th, were read in the great council, filled with untruths and fictions of their own invention. They pretended that they were prevented by the inhabitants from retiring to the Bahia; beſides, that they wanted tranſport veſſels, their ſhips being detained in the bay of Tamandare, and that they muſt expect the King's orders for that purpoſe.

They took alſo a great deal of pains to magnify their ſtrength. The 12th and 13th of September ſeveral letters were diſperſed abroad by the Portugueſe, directed to Juſtice Daems, to Matthew Bek, Balthaſar de Fonſeca, Duarte Sarayva, Caſpar Francis de Coſta, being all merchants, and written by John Fernandes Vieira, in which they again exaggerated their own number, and ſpoke very deſpicably of ours, threatening that, in caſe they ſhould be forced to quit the country, they would deſtroy all with fire and ſword, as they had already done in ſome parts of Parayba. The contents of theſe letters were as follows:

A Letter from Vieira to ſome Merchants in the Dutch Brazil.

"Experience has, without queſtion, convinced you ſufficiently of the reaſons that moved us to undertake this war, and the ſucceſs we have met with is an ample teſtimony that God was pleaſed to inflict this puniſhment upon our enemies for the many outrages committed againſt the inhabitants of this country. This is, however, in a great meaſure to be attributed to the general conſent of the ſaid inhabitants, who having now forced themſelves from the tyrannical yoke of their oppreſſors, ought to expect from me, who, though unworthy, am appointed the chief manager of this war, to be backed in ſo brave a reſolution. I would not have you be ignorant of our ſtrength, which, in compariſon of yours, exceeds all that can be ſaid upon that head; I will only tell you that, as by our quitting the captainſhips of Parayba and Goyana, we are conſiderably increaſed in number; ſo it is moſt evident from thence that the inhabitants choſe rather to loſe their poſſeſſions than to endure any longer the indignities that were put upon them, which was the true cauſe of their inſurrection, and not, as it is given out among you, becauſe they were unable to ſatisfy their creditors; becauſe they left more than what would have paid their debts. But if it ſhould happen ſo, that the ſaid inhabitants ſhould not be able to maintain themſelves by force of arms, they are reſolved to lay all the other captainſhips deſolate in the ſame manner.

"Having, therefore, well weighed the reaſons which ſeem to promiſe us a good iſſue of this war, I thought myſelf obliged, as a friend, to adviſe you, that that party is backed by reaſon, and the unanimous reſolution of many thouſands; for, I can aſſure you, we are at leaſt fourteen thouſand ſtrong, beſides the negroes and Tapoyers, diſperſed in ſeveral places, from Rio Grande as far as Rio St. Franciſco. Kamaron commands ſix hundred muſqueteers, Henry Dias eight hundred negroes, two hundred Minos, and ſeven hundred Tapoyers; and thoſe of the Sertan are at our devotion, whenever we are pleaſed to call for them; but, above all the reſt, we have God on our ſide. We are not ignorant, that before the arrival of Mr. Sigiſmund Schoppe, your whole force conſiſted not in above ſix hundred men, and that the ſuccours come along with him do not amount to above one thouſand two hundred more; moſt of which are boys, and the reſt either dead or ſick. You ſee I am well acquainted with your ſtrength, having killed and taken priſoners about two thouſand ſix hundred of your

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beſt ſoldiers, and five hundred Brazilians, beſides the wounded that were carried to the Receif; when our troops had no other arms than pointed ſticks and clubs. Theſe are bleſſings from heaven, for if we are able to perform theſe things without powder and ball, what may not be expected from our forces, now they are ſtrengthened with good troops, and provided with ſufficient arms and ammunition? All which I confirm to you upon my word, to be nothing but the real truth; and, had it not been in reſpect of thoſe colonels ſent from the Bahia, and of His Majeſty of Portugal, I had by this time been maſter of the Receif, or ſome of the forts, or at leaſt I might have done much greater miſchief: but if matters are not brought to a happy concluſion, I am reſolved to act like a deſperate man, and not leave any ſugar-mills, cattle or negroes in the country, but will rather turn all to ruin and deſtruction, before we will be compelled to ſubmit again to your obedience.

"As theſe preſents may ſerve as a warning to you, ſo I hope you, and the reſt of the merchants, will not delay to enter with us into ſuch articles of agreement, as may be moſt conducing to the preſervation of your poſſeſſions; for I would have you call to mind, that there are many *ingenious* (mills) reduced at preſent to ſuch a ſtate, as not to be likely to be in a condition to be uſed theſe ten years next to come. The Vergea is in no better condition than Parayba and Goyana, and the cattle (without which the mills cannot ſubſiſt) deſtroyed in moſt places.

"Colonel Sigiſmund Schoppe, I ſuppoſe, pretends to keep the field againſt us, as he did in the laſt war, but he will find himſelf egregiouſly miſtaken, becauſe the inhabitants will not be of his ſide; for if I ſhould hear of one that was, I would cauſe him to be hanged immediately. You allege that we are vaſſals of the company, but when was ever any conquered nation treated thus as we were, worſe than the vileſt ſlaves, of which you are ſenſible as well as we; ſo that, being forced to break our chains, we do not owe you any further obedience. If we had not been in hopes of this opportunity, we would long before have implored the aſſiſtance of the King of Spain or France; and if thoſe had failed us, to have had recourſe to the Turks and Moors. I deſire you not to throw away this letter, becauſe experience will convince you of the truth of it; and that we ſhall purſue the ſame methods here as we have done in other places; wherefore, I would have you not give credit to any body, except to thoſe that come in perſon from thoſe places; I having told them nothing but the bare truth, which you will find in effect thus: in the proſecution of this war, I hope you will conſider what is moſt for your intereſt, in which I am ready to ſerve you; for though your governors do not direct their letters to me, it is I that have the chief management of this war, and under my command; the power of the colonels come from the Bahia extending no farther than over thoſe troops they have brought along with them. A Reyal de bon Jeſus, September 11, 1646.

"On the 10th of this month, the before-mentioned colonels having ſent an anſwer to a letter directed to them from your council, by one of our captains, ſeveral inſnaring queſtions were aſked him concerning the preſent war, which he, perhaps, not anſwering according to their expectation, they replied more like drunken cowards than ſoldiers; if they will be pleaſed to come out and tell me theſe things, I will try whether their ſwords are as nimble as their tongues are, and teach them what reſpect is due to the meſſengers of thoſe perſons who have the ſupreme command here. This I write to you at preſent, but ſhall not fail in due time to make my words good by the ſword, of which your people feel the daily effects as often as they dare to come out of their forts. Pray be not deceived, for Brazil is not allotted to you; not queſtioning but that God will bleſs our arms, and if we happen to die, we ſhall loſe our lives in the

defence of our holy religion and liberty; and all thoſe that have refuſed to accept of our offers will pay for it with the loſs of their lives, poſſeſſions, and debts.

"A Reyal, Sept. 12, 1646. (Signed) JOHN FERNANDES VIEIRA."

The 14th of September, a man of war, called the Ter Veer, equipped by the chamber of Zealand, (aboard of which was Colonel Hinderſon) arrived before the Receif, after a voyage of fourteen weeks. The 24th of September, the enemy cauſed ſome pamphlets to be diſperſed, promiſing, in very haughty terms, a general pardon, and a compoſition of their debts, in caſe we would leave the iſland. The 27th of September, Colonel Schoppe returned with ſome troops from Goyana, by the way of Itamarika; I had not met with any enemy, but had found all the ſugar-mills burnt in the firſt place, but the ſugar-reed and farinha fields in a pretty good condition; we received afterwards further information, that the ſugar-mills of Goyana were not quite burnt down. The 27th of October, a conference was held betwixt the old council and Mr. Van Goch, unto whom they imparted their advice concerning ſeveral matters relating to the ſtate of the Dutch Brazil, and eſpecially to the planting of the mandioka or farinha-roots, and the killing of cattle, which they adviſed to be done with great circumſpection, Brazil being not able to ſubſiſt without a conſiderable number of oxen, which were continually employed in carrying of ſugar-reeds, wood, and other neceſſaries, to the mills.

For the planting of farinha-roots they propoſed Itamarika, Rio Grande, and Parayba, which countries were thought ſufficient to ſupply their preſent occaſions; provided it were done before the ſeaſon was elapſed.

In the meanwhile, Colonel Schoppe having made ſeveral, but, for the moſt part, unſucceſsful attempts, upon the enemy, our forces were thereby ſo diminiſhed, that we were not in condition to make head againſt the Portugueſe near the Receif; which made our council take a reſolution to endeavour the recovery of Rio St. Franciſco, the execution of which being committed to the management of Colonel Hinderſon, proved more fortunate for us, he meeting with little reſiſtance thereabout.

Accordingly, the 24th of October, the following ſhips, Count Eano admiral, Loanda vice-admiral, the Arms of Dort rear-admiral, the Bluecock, the Watchful Dog, the Greyhound, Eagle, the Star, Heemſtede, and the Flight, with eight barks, ſet ſail under the command of Admiral Lichthart and Colonel Hinderſon to the ſouth. The 17th of November the council received advice, that our troops under Colonel Hinderſon were ſafely landed at Koraſippa, and, marching from thence to Rio St. Franciſco and the fort St. Maurice, had met with no oppoſition from the enemy, who had begun to raſe the ſaid fort. That they had been ſeconded by the ſmall veſſels, which had followed them up the river, which our forces had paſſed, and were marched to Seregippe del Rey, having left ſome behind to repair the fort; and that four Portugueſe had requeſted their pardon, which was promiſed them. Whilſt our forces were employed thereabouts, I was ordered thither to take care of the neceſſary proviſions (of which there was great plenty) for our troops; having accordingly cauſed my cargo to be embarked aboard a ſhip called the Brownfiſh, Francis Frantz maſter.

I ſet ſail the 24th of November. We were carried with a briſk gale as far as the mountains, called by our people the Saddle-hills, from their ſhape, the coaſt all thereabouts being white ſand downs. About half an hour after ſun-ſet, we ſaw ourſelves off the bay of Tamandare, and from thence continued our courſe with a fair wind, which in two days after brought us happily to the entrance of that great river, which

is ſo broad at the beginning, that a ſix-pounder can ſcarce reach acroſs it; it falls with a very ſoft current into the ſea, its waters being low in the winter, but increaſe in the ſummer, perhaps by reaſon of the ſnows that are melted by the heat of the ſun. About fifty leagues from its mouth is a great cataract or waterfall, ſurrounded by a great many iſlands; the ſea at its entrance meeting in tempeſtuous weather with the current, are ſo boiſterous, thatthey ſtrike terror into the ſtouteſt mariners, and carry away great pieces of the continent along with them. We entered the ſaid river, but were forced to caſt anchor immediately after ſun-ſet, for want of an eaſt wind to carry us higher up, which commonly begins to blow thereabout at three in the morning. The country appeared very pleaſant on both ſides, and we ſaw abundance of wild beaſts near the river-ſide, and ſeveral huts made of ſtraw. We were detained near twenty-four hours upon a ſand-bank, which, after we had paſſed, we came at laſt to the village called Penedos, ſituate upon a high hill; here we landed with our boats, and found a few houſes which were rebuilt by our people, the reſt being burnt by the enemy before their flight. In the fort was formerly, in the time of the Portugueſe, a church, which we turned into a magazine; it was ſurrounded with a goodly wall, the river paſſing by it on the north ſide, where the hill is very ſteep.

The 30th of November Admiral Lichthart was ſeized with a ſudden and violent illneſs, occaſioned by his drinking too much cold water after he had over-heated himſelf before; he was carried into a boat, with three ſoldiers under the command of an officer, lower down the river, but ſoon after loſt his ſenſes, and in my preſence expired. The next day his corpſe being put in a coffin was carried aboard the Golden Star, being conducted by the chief officers there preſent, and four companies of ſoldiers, to the river-ſide, who gave three ſalvoes with their muſkets, as did the cannon from the fort and ſhips, in order to his interment at the Receif.

Towards evening, as I was going aboard our ſhip, the boat overturned by the ſwiftneſs of the current, and, had I not been a good ſwimmer, I had infallibly been drowned; the maſter threw out a great cable over-board, by the help of which, and God's mercy, I got ſafely into the ſhip. The ſoldiers in the meanwhile ſcoured the country, and brought ſeven hundred oxen, (of which there was plenty,) and three hundred calves, into our quarters, having been at paſture in one of the adjacent iſlands of the river, under the guard of ſome ſoldiers; they were not extraordinary fat, but tolerable good meat. The ſoldiers' huts were for the moſt part planted on the north ſide of the hill, which being compoſed of branches and leaves of trees, took fire accidentally the 3d of December, with ſuch fury, that in a quarter of an hour the whole quarter was in a flame, notwithſtanding that the alarm was given immediately, by the beating of drums and the ſounding of trumpets; ſome ſoldiers that were then ſwimming in the river, loſt all their cloaths by this accident. It was well it happened by day; for if it had been in the night it would have put us under a great conſternation, it being generally reported that it had been done by treachery.

There was at that time a plentiful crop of tobacco upon the circumjacent fields, but was not quite fit for reaping, which muſt be done at a certain ſeaſon, before the low grounds overflowed. The colonel deſired me to provide thoſe who had loſt all, with new cloaths, and to deduct it out of their pay; but I told him that I being only a factor, could not do it without ſpecial order from the council, ſome having but little pay due to them. The 25th of December we received intelligence that the enemy began to appear in a conſiderable body, whereupon the companies of Captains Couſin, Schut, Gyſeling, La Montayne, and of a Brazilian captain, called Tomee, were ſent

in queſt of them, with orders to ſet their ſtables on fire, and bring the cattle to our quarters. The next following Monday, word was brought us, that our troops were ſo narrowly enclofed by the enemy, that it was feared ſcarce one of them would eſcape with life. Whilſt we were in a great conſternation, not knowing what reſolution to take, a Brazilian brought us the unwelcome news, that our whole body was routed and diſperſed, and Captains Schut, Couſin, and La Montayne, killed upon the ſpot. He had ſcarce finiſhed his doleful relation before a German ſoldier, who had eſcaped the fight, by his bleeding wounds and his words gave us a confirmation of what had been told us before, with this addition, that Captain Gyſeling's lieutenant, La Montayne's enſign, and one Kilmet, belonging to Captain Schut, had fought their way through the enemy, with about thirty ſoldiers, and would ſoon be here. This miſhap was chiefly attributed to the fool-hardineſs of our troops, who contrary to Colonel Hinderſon's command, having at once diſcharged all their muſquets againſt the enemy, fell in pell-mell, without any regular order, with ſword in hand upon the enemy, which the enemy perceiving, retreated back and drew them into an ambuſh. Towards night we ſaw ſeveral ſoldiers miſerably wounded with darts come to our quarters, ſome who had thrown away their arms, were forced to caſt lots for their lives, the misfortune of which fell upon a Dutchman and a Brazilian, who being tied to a ſtake to be ſhot to death, were however pardoned by the colonel. Captain Gyſeling's lieutenant, who came without his arms to the fort, was ſent immediately to the Receif, where his ſword was broke over his head, and he declared incapable of ſerving the company for the future, notwithſtanding he had done them faithful ſervice for ſeven years laſt paſt.

By this time I was ſent for to the Receif, ſo that after having taken my leave of the colonel and Mr. Dames, I embarked on board the Bat the 16th of December, and we were the ſame evening with a fair wind and ſtream carried to the mouth of the river. It being a fine moon-light night we catched abundance of Zaggers, as we call them, a fiſh of a very good taſte, and continued our courſe with a briſk gale: not far from the river's mouth we met with four of our ſhips, who told us they were to fetch proviſions, but in caſe they could not, were to return forthwith to the Receif. The 18th, we advanced but little, the ſhips being not out of ſight of us, near the river's mouth, but did catch more fiſh than we were able to eat. The 20th we were likewiſe becalmed, and we perceived the moon to be half eclipſed for the ſpace of two hours. The next following day we ſailed ſo near to St. Antonio, that we could ſee them walking along the ſea-ſhore. Towards night we diſcovered Porto Calvo, about thirty leagues from Rio St. Franciſco. We were often becalmed, but catched abundance of king's-fiſh and cods, and ſaw fires in many places along the coaſt. The 24th of December we came ſo near to the cape of St. Auſtin that we diſcovered five ſhips and ſeven row-barges in the harbour; we might have reached ſome of thoſe that went aſhore with our ſhot, had it not been for the ſand-bank which hindered our nearer approach. About noon we came before the Receif, but it was ſo foggy that we could ſcarce diſcover the water-fort; nevertheleſs we ventured in, and I got aſhore immediately, with an intention to give an account of the ſtate of affairs in Rio St. Franciſco to Mr. Schonenbergh, being conducted thither by Colonel Schoppe, who happened to meet me immediately after my landing.

The 27th of October the enemy had laid two ambuſhes in the way to the fort Prince William, beyond the redoubt Kiik. They did not ſtir till towards noon, when perceiving a company of our ſoldiers marching along the dike, they fired ſo briſkly upon

them, that they killed eleven, wounded twelve, and took three priſoners; yet not without the loſs of ſome on their ſide.

In the meanwhile the Tapoyers being much exaſperated at the murder of the before-mentioned Jacob Rabbi their commander, had left our party; the council did what they could to appeaſe them, impriſoned and baniſhed Garſman the author of it, and confiſcated his eſtate, notwithſtanding which, the Tapoyers could not be prevailed upon to join with us as before.

The 18th of November Mr. Van Goch entered into a conference with the members of the old council, whether it might not be feaſible to embark what forces we were able to ſpare on board our great ſhips, and to attempt to make a powerful diverſion to the enemy by attacking him in ſome place or other. But thoſe of the old council having repreſented to him the danger of this enterpriſe if it ſhould miſcarry, whilſt they were blocked up in the Receif, the further debate thereof was deferred till the next day. It was then propoſed, upon ſecond thoughts, that in caſe we could bring all our forces together, ſomething of moment might be undertaken without manifeſt hazard, whereby to oblige the enemy to withdraw his forces from the Receif; but Mr. Van Goch apprehending no ſmall danger in caſe we miſcarried, they came to no reſolution for that time.

It being found by experience that all our promiſes of pardon had proved ineffectual, it was propoſed by Mr. Van Goch the firſt of December, whether it was not moſt expedient to give no quarter for the future; unto which it was anſwered, that very ſeldom quarter had been given by us, and few priſoners were taken, and that the enemy had likewiſe killed moſt of our people that were fallen into their hands, but they judged it not convenient to refuſe quarter to all without diſtinction, which would induce ſuch of the inhabitants as had remained quiet hitherto, to betake themſelves likewiſe to their arms.

The 23d of November we laid an ambuſh for the enemy near the fort of Affagados, who being by ſome few ſent out for that purpoſe engaged in a ſkirmiſh, and purſuing our men with great eagerneſs under the cannon of the fort, were ſet upon by thoſe lying in ambuſh, who killed and wounded many of them.

The 12th of December the corps of the late Admiral Lichthart was interred, one company of the city-militia, and two of ſoldiers appearing in arms upon that occaſion, gave him three ſalvoes with their muſquets.

The 30th of December the Eagle yacht brought letters to the council, dated in Rio St. Franciſco the 4th of December, intimating that in an iſland a little above the fort, one Colonel Rebellia was arrived with two hundred men from the Bahia; and that they expected another reinforcement, as well from thence as from the Vergea; that our people being ſent higher up the river, had attacked ſome of the enemy's troops, but they made their eſcape to the other ſide, leaving their arms and clothes behind them.

The 2d of January 1647, Colonel Schoppe, who had been with three hundred fuzileers in Goyana, returned to the Receif, giving an account that he had taken a view of all the rivers thereabouts, but met with no enemy.

The 5th of January the council received an account of the before-mentioned action in Rio St. Franciſco, viz. five companies of our forces being ſent to Orambou, to beat up the enemy's quarters, they met with a body of one hundred men, whom they attacked and put to flight; but ſoon after our forces were attacked by a much ſtronger body, who put them to the rout, with the loſs of one hundred and fifty men; of our officers one captain was killed, and five taken priſoners, viz. Captains Samuel Lambart,

Lambart, La Montagne, Gerrit Schut, Kilian Taylor, Daniel Koin, and three lieutenants, Jooſt Koyman, Anthony Baliart, Jeronymus Hellemen, and one enſign.

The 8th of January Mr. Van Goch, in the name of the new council, adviſed with thoſe of the old council, that it being reſolved among them to ſend for a conſiderable number of their forces out of Parayba, in order to gather a body of troops for ſome important deſign, they deſired to be informed concerning the preſent condition of the ſaid captainſhip; and whether the city of Parayba and St. Andrew might be defended by a ſmall garriſon; whereupon thoſe of the old council replied, that the town of Frederica had no freſh water but what they muſt fetch at a mile's diſtance, and conſequently might be cut off by the enemy; the ſame thing might be done at the paſſage leading to the river ſide; beſides, that there was no fortifications belonging to the place but the monaſtery, which was of no great conſequence, and the Guarte Domaiges church, which had been fortified by the enemy in this war. As to St. Andrew it was no more than a ſugar-mill, about four hours diſtant from the city of Parayba, ſituate upon the bank of the river; that the communication of this place with the fort of St. Margaret might eaſily be cut off by the enemy, as being likewiſe about four leagues from thence, but it might be relieved from the water-ſide, and yet not without great difficulty. Mr. Van Goch told them he would make his report thereof to the council.

The 12th of January the council received advice, that the enemy were, with a ſtrong body of troops, entered Parayba, and advancing very near to the ſugar-mill of St. Andrew's, had in the night-time ſurpriſed ſome Dutch and Brazilians, to the number of fifty men, women and children, of which they had killed ſome, and ripped up the women's bellies.

The 13th of January ſome pamphlets were again diſperſed by the enemy, containing in ſubſtance, that ſince the inhabitants of the Receif were now beyond all hopes of further relief, it would be their ſureſt way to come to an accommodation; for they were reſolved to venture all before they would lay aſide their deſign; but if all failed, they would deſtroy the whole country, and ſo leave it: they exhorted them not to be deceived by the inſinuations of thoſe who belonged to the company, and called them rebels; they being no more to be ſtyled ſo than the Dutch themſelves, who had aſſerted their liberty againſt Spain.

The 17th of January four negroes belonging to one Iſaac de Raſſier, who had been taken priſoners ſome days before in Parayba, came over to us into the Receif, and brought advice, that the enemy, after having tarried but a little time in that captainſhip, where they had killed five Dutchmen and ſome Brazilians, were retired from thence.

The 22d of January, early in the morning, the enemy began to batter the wooden fort near the Baretta, from a battery on the bank of the ſouth ſide of the river, which he continued the whole day, but deſiſted at night; the garriſon having been reinforced about noon with five companies of ſoldiers, and ſome proviſions; becauſe Mr. Hamel, one of the members of the old council, did repreſent to Mr. Van Goch, that though the fort itſelf was ſo inconſiderable, as ſcarce to be worth the trouble of defending it by a good garriſon, yet at this juncture, when the enemy had made his firſt attempt upon it, it would not be adviſeable to deſert it, for fear of giving encouragement to the enemy to attack the other forts; but that on the contrary, as long as they did meet with a brave reſiſtance here, they would not be ſo forward to attempt others; eſpecially ſince we had the conveniency of relieving them with boats at high water, with low tide by land by the way of the ſand-ridge; and that we might annoy the

enemy

enemy with the cannon from our yachts in his trenches, as we had done that day. About the ſame time, a map was ordered to be made, ſhewing the true ſituation of the Receif, with the turnings and windings of the adjacent rivers and marſhes, as far as the Baretta, for the better inſtruction of the council.

The 24th of January in the morning, news was brought that the enemy had raiſed the ſiege of the fort of the Baretta the night before, and carried off all their cannon, being ſenſible that as long as they could be annoyed from the ſea-ſide, and we be able to reinforce them daily with freſh troops, they could promiſe themſelves but ſlender ſucceſs: but beſides that, our people were to ſtruggle againſt the enemy and famine, they were frequently troubled with deſertions; many of our ſoldiers, nay, even to the ſerjeants and other officers, who begun to deſpair of our caſe, running over to the enemy, even at that time when the before-mentioned ſhips, the Faulcon and Elizabeth, were in ſight of the Receif.

Now the members of the old council began to prepare in good earneſt for their return to Holland, they had already, in December 1646, ſolicited Mr. Schonenbergh, preſident of the new council, to order ſome ſhips to be got ready to tranſport them thither, and the Ulyeſſingen had been appointed for that purpoſe; but the ſame being not as yet returned from cruizing, they applied themſelves, the 25th of January 1647, to Mr. Van Goch, and told him, that whereas, according to their commiſſion, one of them ſhould return after the expiration of three years, they had continued in Brazil theſe ſix years, Mr. Kodde having indeed been ordered to return about that time, but his place not being ſupplied by another, he died before his departure: that they had, for theſe three years laſt paſt, ſolicited their return, and had two years ago received promiſes of being relieved by others; which had not been performed till within theſe few months, to the great prejudice of themſelves and their families: Mr. Van Goch promiſed them to take effectual care to have the ſhips got ready, and to ſend for the ſhip the Ulyeſſingen, in order to their return home. At the time of the acceſſion of the new council to the government, and the departure of Henry Hamel, Adrian Bulleſtraet, and Peter Bas, late members of the great council, the following forts remained ſtill in the poſſeſſion of our Weſt-India company:

The fort of Keulen, at the mouth of Rio Grande, provided with twenty-eight braſs and one iron cannon.

The redoubt of St. Antonio, on the north ſide of the river Parayba, with ſix iron pieces of cannon.

The fort Reſtanguets, in an iſland of the ſame name within the river Parayba, with four braſs and five iron pieces of cannon.

The fort Margaret, on the ſouth ſide of the river Parayba, with fourteen braſs and twenty-four iron pieces of cannon.

The fort Orange, in the iſle of Itamarika, with ſix braſs and ſeven iron pieces of cannon.

Noſſa Senhora de Conceptiano, an old battery upon the hill of Itamarika, with two braſs and eight iron pieces of cannon.

The redoubt called Madame de Bruin, three iron pieces of cannon.

The fort Wardenbrugh, alias the Triangular Fort, betwixt the Bruin and the Receif; the firſt provided with four braſs and five iron pieces of cannon; the laſt with fourteen braſs guns.

The Land Fort, alias St. John's, with eleven iron guns.

The Water Fort, at the mouth of the river of the Receif, with ſeven braſs guns.

The

The fort Erneſtus, with five braſs and three iron pieces of cannon, and the battery with five braſs and two iron pieces of cannon.

The Receif.

Maurice's Town, upon the iſland of Anthony Vaez.

The fort Frederick Henry, alias the Quinquangular Fort.

The redoubt of ſtone near this fort.

The redoubt Kiik, betwixt the fort Frederick Henry and the fort Prince William.

The fort Prince William, upon the river Affagados.

The forts then in poſſeſſion of the Portugueſe, and taken by them from the Dutch, are theſe:

Seregippo del Rey, Rio St. Franciſco, and Porto Calvo, being reduced by famine, were raſed by the Portugueſe, being ſenſible that our people could not maintain themſelves there without erecting of new ones, which was not to be done without a vaſt charge. Near the point of Tamandare, the place where the Portugueſe from the Bahia firſt of all landed their men; and where afterwards their fleet was beaten by ours, the enemy laid the foundation of a fort for the ſecurity of that harbour, where ſhips of great burthen might ſafely ride at anchor.

The 23d of January, Mr. Beaumont was ſent by the new council to confer with the late members, concerning the preſent condition of Rio St. Franciſco, and what was beſt to be done there: they anſwered him as before, that the fort as it was now could do but little ſervice, and that therefore it would be worth our conſideration, whether the propoſals made by them in writing might not now be put in practice. The ſaid Mr. Beaumont further propoſed, whether it would not be requiſite to erect an earthen redoubt for the defence of the Baretta; unto which thoſe of the old council replied, that conſidering the vaſt charge, and the ſmall benefit which could be expected from it, the ſame might be more conveniently built in ſome place or other, to facilitate our paſſage into the open country. Beaumont was of opinion, that thereby the enemy would be prevented from advancing to the fort Frederick Henry; but the old members told him, that notwithſtanding we had now a fort on the Baretta, we could not hinder the enemy's coming upon that iſland near the fort, unleſs we would keep a conſiderable force there for that purpoſe; that we need not fear their tranſporting any cannon thither, becauſe their retreat might be cut off at high tide; neither could they, from thence, do any miſchief to the Receif, it being evident, that the ſhot of our biggeſt cannon in the fort Frederick William could not reach the ſaid iſland. The ſame evening, Mr. Van Goch and Hack came to tell the members of the old council, that the Hollandia and Ulyeſſingen would be ready in a little time, in order to conduct them to Holland, the Ulyeſſingen being ordered forthwith to return from the Bahia, whither ſhe was ſent a-cruizing.

By this time the enemy had blocked us up ſo cloſely in the Receif, that on the land ſide we durſt ſcarce look without the gates; and a certain Portugueſe had prepared us a worſe entertainment, having invited all our chief commanders abroad to his daughter's wedding, during which time the enemy were to have ſurpriſed the city; but this deſign being timely diſcovered by ſome Portugueſe and Jews, miſcarried.

About the 15th of October, the Portugueſe began to rebuild the fort Bon Jeſus, as it is called by them, but by us Altena, on the other ſide of the river. We had ſome notice of it by deſerters, but could not diſcover the truth of it, becauſe they kept us from advancing that way by their cannon, and the place was ſurrounded on all ſides with woods; but as ſoon as they had cauſed them to be cut down, we diſcovered it both by ſight and the roaring of their cannon, which thundered inceſſantly againſt

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the city, cauſed ſuch a conſternation, as is not eaſy to be expreſſed, moſt people ſheltering themſelves in vaults, to avoid the fury of the enemy's cannon. Of this I ſaw a moſt miſerable ſpectacle in a certain young lady, a niece of the late Admiral Lichthart, who being come to viſit one of her acquaintance lately married, had both her legs ſhot off by a cannon bullet, which at the ſame time killed the new-married woman upon the ſpot. At the outcry of theſe miſerable wretches I ran thither inſtantly, my houſe being juſt by, where I was an eye-witneſs of their miſery, the poor young lady graſping my legs with ſuch an agony, that ſhe could ſcarce be pulled off with all the ſtrength I had; it being a moſt doleful ſpectacle for me to ſee the floor covered with the legs and arms of theſe miſerable wretches; the poor young lady died likewiſe within three days after. It was not long after that I narrowly eſcaped the ſame misfortune; for whilſt I was talking with ſome of the inhabitants of the city, as I was going the rounds, two of them were killed by a cannot bullet, and another had both his hands ſhot off as he was lighting his pipe. Nay, we were forced to remove all the ſhips out of the harbour for fear of being ſunk. Colonel Schoppe, in the meanwhile, had made himſelf maſter of and deſtroyed Taperika, 2,000 Portugueſe only having ſaved themſelves by flight; but by the many unſucceſsful encounters we had with the Portugueſe, our forces decreaſing daily, whereas theirs increaſed, Colonel Schoppe was ordered to command Colonel Hinderſon to leave Rio St. Franciſco, and to join him in Taperika; but this ſtood us but in little ſtead, being not long after obliged to leave likewiſe Taperika for the relief of the Receif. All our force conſiſting of about 1,800 men, being now come to the Receif, (where they had not proviſions for above ſeven months left) it was ſeveral times taken into conſideration, what was beſt to be done at this juncture. Colonel Schoppe, with ſome other officers, were of opinion not to hazard an engagement, our forces being ſo much inferior to the enemy, but to ſtay for a more favourable opportunity; but it was carried by the majority to venture a general ſally for the relief of the Receif, the chief command thereof being given to Colonel Brink, becauſe Colonel Schoppe was not as yet cured of his wounds he had received in a late encounter. Our forces marched towards evening as far as Guerapes, a place fatal to us the year before by the defeat of our people, the fields thereabouts being as yet covered with their bones. The Portugueſe no ſooner perceived us to be upon the march, but they left the fort Altena, of which we having got notice, poſſeſſed ourſelves of it immediately,, and thus drew the thorn out of our foot. But the 16th of May proved the moſt fatal of all we had ſeen for many years before in Brazil. For though our forces attacked the enemy with bravery, and maintained the fight with great obſtinacy for ſome time, yet the enemy, fluſhed with their number and late ſucceſs, with 2,500 of their beſt men, at laſt forced our men to give way, and afterwards to fly, being purſued by 150 Portugueſe horſe; ſo that both in the fight and flight, we loſt above 1,100 men, among whom were Colonel Brink, and almoſt all the reſt of our commanders: we loſt alſo nineteen colours, and all our cannon and ammunition we had carried along with us. It was not till five days after before leave could be obtained to bury our dead, which began to corrupt and ſtink moſt nauſeouſly, by reaſon of the burning heat of the ſun. This was the laſt effort we were likely to make in the field; all our future care being for the preſervation and defence of the Receif, unleſs we ſhould be ſupplied with freſh ſuccours from Holland: but the ſame arriving but ſlowly, moſt people began to fear, that, in caſe God Almighty did not ſend us ſome unexpected relief, we ſhould be at laſt forced to leave that place likewiſe to the mercy of the enemy; the great council laying the fault of our late misfortunes upon the council of war, and theſe again upon them, alledging that the ſoldiers were ill-provided for, and wanted their pay. As for myſelf,

being ſenſible that things would be worſe and worſe every day, I thought it the ſafeſt way for me alſo to deſire a paſſport for my return to Holland, which at laſt with much ado I obtained, and ſo prepared every thing for my voyage. But before I leave Brazil, I ought to give you a ſhort account of the products of the ſaid country.

The captainſhip of Pernambuko, and Brazil in general, being not only well ſtored with cattle, but alſo with ſeveral ſorts of herbs, trees, and fruits, we will give you a ſhort view of them, and begin with the Mandiiba, and its root, called Mandioka, unto which the Brazilians ſtand chiefly indebted for their ſuſtenance. The moſt parts of America are ignorant hitherto of wheat or any other grain, inſtead of which, nature has furniſhed them with a certain ſhrub, the root of which dried and powdered, and afterwards boiled and baked as we do our bread, is the common food of the inhabitants of America. This ſhrub grows in vaſt plenty every where, being by the Brazilians called Maniiba and Mandiiba, and its root Mandioka. There are divers kinds of it, diſtinguiſhed by the Brazilians by different names, but the root is in general called mandioka. Their leaves are ſmall, green, and long, pointed at the end, which grow upon large ſtalks or branches, each of which has five, ſix, or ſeven leaves, growing in a cluſter, reſembling a ſtar, called by the Brazilians, Manikoba. The ſtock or ſtem is diſtinguiſhed by certain knots, not above an inch thick, but generally ſix, ſometimes ſeven feet high, from whence ſprout forth ſeveral branches, which producing again leſſer ſtalks, bear the before-mentioned leaves. It bears a ſmall flower of a pale yellow colour, and of five leaves only, with ſmall ſtalks within, which at laſt turn to ſeed. The root mandioka reſembles our parſnip in ſhape, being two or three foot long, and about a man's arm thick, but grows thinner towards the bottom. Its outward rind reſembles that of a hazel-tree, but its ſubſtance is white, affording a milky ſharp juice, which is pernicious to beaſts. This ſhrub grows in dry, barren, and ſandy ground, its nature being ſo averſe to moiſture, that they are obliged to plant it only in the ſummer months, where it is moſt expoſed to the ſun. For this purpoſe it is, that the inhabitants cut down the woods on the hills and in the plains, which they burn, and ſo prepare the ground for the production of this root; theſe fields are by the Brazilians called Ko, by the Portugueſe, Roza or Chokas, and by our people, Roſſen. Theſe fields are turned up into ſmall round hills like mole-hills; the Portugueſe call them Montes de Terra Cavada, or Hollowed Hills, the Brazilians, Kujo. Theſe hills they make about two foot and a half aſunder, each being about three foot in circumference, and half a foot high, that the rain may be carried off with the more eaſe. In each of theſe hills they commonly plant three ſmall taks of this ſhrub, of about nine or ten inches or a foot long, without leaves; notwithſtanding which, they grow and ſoon bear freſh leaves, and in time produce new roots, which cannot be tranſplanted, becauſe no ſooner are they taken out of the ground, but they begin to putrefy and ſtink. After theſe taks have been about ten days in the ground, they begin to bud and produce as many freſh taks as they have knots; each of theſe taks is about a finger long, from whence ſprout forth many leſſer ones of a purple colour. The fields muſt be three or four times a year cleared of the weeds, which grow in great plenty amongſt it, and choak it up before it comes to its full growth. The ſmall taks and leaves of theſe ſhrubs are mightily infeſted by the piſmires, and likewiſe coveted by the wild-goats, oxen, horſes, and ſheep, for which reaſon they are very careful to fence theſe plantations with ſtalks and branches of trees. The bees, conies, and ſome other Brazilian creatures, are mighty fond of the root, which takes no harm, though the ſhrub be ſtripped of all the leaves, provided the

root

root itſelf be not touched. This root does not come to its full perfection till a year after planting of the taks, though, in caſe of neceſſity, they may be drawn in ſix months, but afford but little farinha. Each ſhrub produces two, three, four, nay ſometimes twenty, roots, according to the goodneſs of the ground, and after they are come to full maturity, will keep two or three years under-ground; but it is much more ſafe to take them up at the year's end, for elſe many of them will rot; nay if the ſeaſon happens to prove very wet, they muſt of neceſſity be drawn, though they are but half ripe. The root, after it is taken out of the ground, will not keep above three days, but ſtinks, take what care you can; for which reaſon they ſeldom draw more at a time than they can make immediately into farinha or meal. That kind of mandioka, commonly called Mandibuka, grows faſter and ripens ſooner than any other, and affords the beſt farinha; it thrives beſt in ſandy and hot grounds. But that kind which is moſt generally uſed is called Mandiik-parata, and grows indifferently in all grounds. The farinha is prepared thus: the root after it is taken out of the ground is purged from its outward rind by a knife, and waſhed in fair water; then the end of the root is held cloſe to a wheel of about four or five foot diameter, which being covered round the edges with a copper or tin plate full of ſharp ſmall holes, not unlike a nutmeg-grater, and the wheel being turned round continually, grates the ſaid root into ſmall particles, which fall into a trough underneath. The wheel is by the Brazilians called Ibecem Babaca, and by the Portugueſe, Roda de farinha, or the flour-wheel; the trough the Brazilians call Mukaba, and the Portugueſe, Koche de rater Mandihoka. But the poorer ſort are fain to be contented with a hand-grater, called Tapiti. The root thus grated is put into a bag, made of the rinds of trees, about four inches wide, called by the Portugueſe, Eſpremondouro de Mandihoka. This bag with the root is put into a preſs, and all the juice preſſed out, (it having a venomous quality) which is by the Brazilians called Manipoera, or Munipuera, and by the Portugueſe, Agoa de Mandihoka, i. e. the water of Mandihoka. The next thing to be done is to beat the root through a ſieve, called by the Brazilians, Urupema; and then to lay it upon a copper-plate, or earthen pan, over the fire, and to ſtir it continually with a wooden ſpoon or ſpattle till it be quite dry. This pan or veſſel the Brazilians call Vimovipaba, and the ſlice Vipucuitaba. The farinha, before it be quite dry, is called by the Brazilians, Vitinga, and by the Portugueſe, Farinha Relada; but when it is completely dried and fit for keeping, the Brazilians call it Viata or Viccia, and the Portugueſe, Farinha Seca, or dry meal; or Farinha de Guerra, war-meal, becauſe it is moſt uſed in time of war. For the more it is dried the better it keeps, but never keeps good above a year, the leaſt moiſture being apt to taint it; which is the reaſon, that both the Portugueſe and we, in imitation of the Brazilians, make biſcuits of it upon a grate iron, with hot coals underneath, for the magazines.

The juice Manipuera, which is preſſed out of the root mandioka, put into a veſſel, gets in two hours time a white ſettlement at the bottom, called by the Brazilians, Tipioja, Tipiaka, and Tipiabika; this dried, affords a very white meal, called Tipiocui, which, baked into cakes as before, called by them Tipiacika, taſte as well as wheaten bread. This juice is alſo boiled to pap, and eaten, and ſerves likewiſe inſtead of ſtarch or paſte. The Portugueſe take this pap, mix it with ſugar, rice, and orange-flower-water, which they make into a conſerve of a delicious taſte; they call it Marmelada de Mandihoka. The juice Mandiga or Manipuera is of a ſweetiſh taſte, which is the reaſon the beaſts covet it, but commonly die ſoon after they have drank of it, it being pernicious, nay mortal, both to man and beaſt. If the juice be kept twice twenty-four hours, it produces worms, called by the Brazilians Tapucu; yet it has been found by experience, that this juice loſes its pernicious quality after it has

ſtood twenty-four hours, there being many of the Brazilians who boil and drink it without any harm. The root mandioka, is likewiſe immediately after it is taken out of the ground, ſliced in pieces, and laid in freſh water for four or five days; when it begins to be ſoft it is called Puba, or Mandiopuba, and Mandiopubo. This the wild Brazilians inhabiting the deſerts and woods, roaſt in the aſhes and eat; becauſe it is done without much trouble. The ſame mandiopuba, toaſted before the fire, is called Kaarima, which being afterwards beat to powder with a wooden peſtle in a mortar, they call Kaarimaciu; of this they make a pap with boiling water, which, ſeaſoned with ſome Brazilian pepper, or Nhambi flowers, affords a very good diſh, eſpecially with the addition of ſome fiſh or meat, when it is called Minguipitinga by the Brazilians, who look upon it as one of their beſt dainties. It is alſo very wholeſome, for this Kaarima, and the flower Tipiaka, boiled in orange-flower-water and ſugar, to the conſiſtency of a ſyrup, affords a very good antidote. They make alſo a kind of ſtarch of the flower called Kaarima, which they called Mingaupomonga; as likewiſe very fine cakes, by mixing it with water, butter and ſugar. There is a kind of meal prepared from the dregs of the mandioka or mandiopuba root, thus ſteeped in water, called by the Brazilians, Vipuba, and Viabiruru, and by the Portugueſe, Farinha Freſca, or freſh flour, and Farinha d'Agoa, or water-flour. It is very well taſted, but will not keep above twenty-four hours. But if you make it up with water into balls and rolls, and let them dry in the ſun, they will keep good for a conſiderable time; theſe they call Viapua and Miapeteka. The Tapoyers, and almoſt all the other Brazilians, prepare it thus, and afterwards mix it with another meal called Viata, which affords it a more agreeable taſte.

The mandioka root is likewiſe prepared thus; after it has been cleanſed, and cut in thin ſlices, they beat it with a wooden peſtle, and ſqueeze the juice out with their hands only, which being dried, they call Tina and Mixakuruba; another way of preparing the mandioka root is, to cut it into pieces of about two fingers long, and two inches thick, which, without being ſqueezed, is expoſed to the ſun, and afterwards beat to powder in a wooden mortar, called by the Brazilians, Tipirati, by the Portugueſe, Farinha de Mandioka Crua, or the flour of raw mandioka; the pieces before they are beaten to powder are very white, and may be uſed inſtead of chalk. Out of this flour they make very good white bread and biſcuits, called Maipeta, the laſt of which are chiefly uſed in the camp, becauſe they will keep a great while.

Out of the root Aipimakaxera, the Brazilians boil a certain pleaſant liquor not unlike our whey, called by them Kavimakaxera. The ſame root, chewed and mixed with water, furniſhes them with another liquor they call Kaon Karaxu. The cakes made from the flour of this root, laid in a caſk with water, till it ferments together, affords them likewiſe a ſort of ſtrong and very good beer.

All theſe different kinds of mandioka roots, if they be eaten freſh, prove mortal to mankind, except that called Aipimakaxera, which roaſted, may be eaten without danger, and is of a good taſte. But all ſorts of beaſts, both wild and tame ones, do not only feed upon the ſaid roots and leaves, without the leaſt hurt, but alſo grow fat with them, notwithſtanding that the juice of both is mortiferous as well to men as beaſts. The negroes and Brazilians bruiſe the leaves of the mandiiba in a wooden mortar, which being ſpoiled, they put oil or butter over it, and eat it as we do our ſpinage; this is ſometimes done by the Portugueſe likewiſe, and the Dutch, who make a kind of ſallad of the ſame leaves. The Brazilians prefer the bread made of the mandioka root before ours, but it is not ſo natural to the Europeans, it being, if uſed in a great quantity, pernicious to the nerves and ſtomach, and corrupts the blood.

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About three buſhels of this meal (at the rate of two gilders per buſhel) will ſuffice a ſtrong labouring man for a whole month, and a piece of ground planted with this root, produces four times the quantity, as if it had been ſown with wheat. There is a certain kind of mandioka root called Pitinga by the Brazilians, the flour of which cleanſes and heals old ulcers. This root is likewiſe found in the iſle of St. Thomas, and in thoſe of Hiſpaniola, Cuba, and others thereabouts, and in moſt parts of the continent of America; the inhabitants of which call it Yuka and Kaſſave, and thoſe of Mexico, Quauhkamoth, and the bread which is made of the flour, Kazabis, Kazabi, or Kakavi. The mandioka root is originally the natural product of Brazil, and from thence tranſplanted into other parts of America and Africk. Its flour furniſhes all the inhabitants of Brazil, as well the Portugueſe and Dutch, as the natives and negroes, with bread, which next to wheat is the beſt of all, ſo that our ſoldiers would rather chuſe to have their allowance in farinha, than wheaten bread out of the magazines. Since the war in 1645, the price of the farinha was riſen to three or four gilders per buſhel, which, as it tended to the utter deſtruction of the ſugar-mills, ſo by ſpecial orders from the great council of the Dutch Brazil, all the inhabitants of the open country were enjoined, under a ſevere penalty, to plant a certain quantity of mandioka yearly, in proportion to their abilities, by which means the price of the farinha was ſo conſiderably abated, that three buſhels were ſold for two ſhillings ready money, at the Receif, and for leſs in the country.

Brazil produces a certain herb called Kaaeo by the Brazilians, by the Europeans in Latin, *herba viva*, becauſe it ſeems to ſhrink when you touch it, and ſo it does likewiſe about ſun-ſet; its ſeed has been tranſmitted into Europe, where it grows to its full perfection.

The Kalabaſſes are a kind of pompions, their rind, if dried, being ſo thick and ſtrong, as to ſerve for materials for cups, porringers, and ſuch like utenſils. But what is moſt ſurpriſing, is, that they always grow of a different ſhape, ſome being long, others round, others oval, ſome thick before, others at the end. They bloſſom and bear fruit once a month, the bloſſom being yellow mixed with green; the pulp is white at firſt, but turns to a violet colour; they are of a tolerable pleaſant taſte, but very unwholeſome, by reaſon they are too aſtringent.

The tree called Imakaru by the Brazilians, is of a middle ſize, its trunk round and its bark grey, covered with ſmall thiſtles of the ſame colour. Its branches ſprout forth on the top, with broad leaves of an oval figure, edged likewiſe with ſmall thiſtles of thorns. There is alſo another kind of Imakaru, much larger than the former, called Kakabu by the Brazilians, and Kardon by the Portugueſe. This ſprouts forth firſt of all in the form of a large octangular leaf, upon which grows croſſwiſe many thorns; this produces other leaves of the ſame kind, each being three, nay ſometimes ſix foot long, and of the thickneſs of a man's arm. By degrees the firſt leaf turns into a woody ſubſtance, of a greeniſh colour, but ſomewhat ſpungy; thoſe leaves that grow next to this ſtem are inſtead of branches, which produce other leaves. The ſtem bears only one large white flower, the fruit of which is of an oval figure, and of about twice the bigneſs of a hen's egg, of a dark brown colour, and fit for uſe. This tree grows to a great height. There is alſo another kind of Imakaru, being altogether the ſame with the former in reſpect of its largeneſs, bloſſom and fruit, except that its leaves are of a triangular figure.

What the Brazilians call Pako Kaatinga, the Portugueſe commonly call Canodo Mato, or wild reed or canes. The ſtem or ſtalk is like that of other canes, about an inch thick, containing a white marrow or pith, of a ſweetiſh taſte, on which grow

leaves of eight or nine inches long, and three inches broad, ſhaped like a tongue, ſmooth and pale, green on one and covered with a white woolly ſubſtance on the other ſide. The fruit of which is not unlike a pine-apple, about ten inches long, growing on the top of the ſtem; it is divided into ſeveral partitions, which, opening by degrees, a pale grey flower appears betwixt each, containing underneath twenty or more grains of a black ſhining ſeed. The ſtalk chewed draws the rheum from the head, and breaks the ſtone in the bladder. It is looked upon as an excellent remedy againſt the involuntary emiſſion of the ſeed throughout Brazil, and cures it in eight days time.

All over Brazil, but eſpecially in the iſle of Itamarika, grows a certain tree called Kasjui or Kasjou, bearing a fruit of the ſame name. Its leaves are dark-green, broad and round, interſperſed with many ſmall veins. It bears two different bloſſoms and fruits. The white bloſſom which appears in the lower branches produce a juicy ſpungy fruit like an apple, of a very cooling and aſtringent quality; but the red bloſſom on the top a kind of cheſnut. The Brazilians draw no ſmall advantage from this tree; out of the apples they make a very good cyder called by them Kasjouwy, which is ſouriſh, but if mixed with ſugar, makes it as pleaſant as Rheniſh wine, and has this excellency, that though it ſoon ſeizes the head, yet it paſſes off without any harm. The other fruit they eat like as we do our cheſnuts.

Among the products of the Weſt and Eaſt-Indies is a tree called Papay by the Javaneſe and Dutch, and Pinoguacu or Mamoeira by the Americans; and ſometimes entitled with the name of the melon-tree by our people, by reaſon of the reſemblance of its fruit to our melons. This tree is of two different kinds, to wit, the male and female. It grows and periſhes again in a ſhort time, its trunk being ſo ſpungy that it may be cut as eaſy as a cabbage-ſtalk; the leaves it bears are very large and broad, not unlike our vine-leaves, growing on long ſtalks round the top of the tree, and covering the fruit, which hangs in a knot, and is green at the firſt, but turns yellow at laſt, reſembling in ſhape a pear, but of the bigneſs of our ſmall melons, unto which its pulp reſembles both in colour and taſte, when come to maturity, but whilſt they are green, they are boiled with meat, and give it a tart taſte.

The red-pepper, known by the name of Brazil-pepper, and called Chili Lada by the Brazilians, grows on knotty ſtalks of about five or ſix foot high; the rind being a dark-green, diſtinguiſhed with white rings, from whence ſhoot forth ſmall crooked branches of a hand's-breadth in length, bearing a ſmall white flower, which produces a green huſk, and turns red by degrees as it ripens, with a certain ſeed within it, being as hot and biting upon the tongue as the common brown-pepper, and ſo does the huſk. In the Eaſt Indies they preſerve it, and call it Aetzar, and uſe it raw in their fiſh-ſauces. In Brazil, they cut two or three of theſe huſks, whilſt they are green, in ſlices, and mix them with oil and vinegar, or ſome lemon-juice, to acuate their appetite, but it is too hot for thoſe that are not uſed to it, which is allayed by a good quantity of ſalt. This kind of pepper grows likewiſe in the Eaſt-Indies, in the iſland of Java, in Bengal, and ſeveral other places. I have ſeen it alſo in ſome of our gardens in Holland. There is another ſhrub which grows frequently in the Eaſt Indies, not unlike this in ſhape and bigneſs, which bears a yellow flower; it is called Halika Kabus by the Arabians or Alkekengi, and ſufficiently known in theſe parts. The flower produces a ſmall bladder which contains the fruit and ſeed; they are not ſo big as ours. The Indians and Chineſe mix it with a certain fruit called by them Poma d'Oro, Tamatas by the Portugueſe, and Melanſana by the Italians; they alſo eat it with Chili Lada, or Brazilian pepper. The Portugueſe cut the Poma d'Oro and the huſk of the Brazilian pepper in thin ſlices, which being mixed with oil and vinegar, they eat as ſallad, and look upon

upon it as a proper remedy to cut the rough phlegm of the ſtomach, a diſtemper very common in thoſe parts. The Brazilians, as well as the Dutch, chew this pepper for the ſame purpoſe, but it is very burning upon the tongue.

The ſugar-canes or reeds, called by the Brazilians Viba, are the product both of the Weſt and Eaſt Indies, but grow in great plenty throughout all Brazil, but eſpecially in the captainſhip of Pernambuko. They are of two different kinds, one bearing ſmall, the other larger leaves. The laſt, which is accounted the beſt, ſprouts up into a long ſtem of the thickneſs of a child's arm, the leaves growing all on the top in a cluſter, being of an oval figure, and a dark-blue colour. The rind is diſtinguiſhed by certain joints or knots; the other kind bears ſmall leaves from the top to the bottom. The ſugar-canes are propagated from their ſmall ſprouts, which being put in the ground like our vines, grow up to the height of twelve foot, if they are planted in good ſoil, and are kept free from weeds. Six months after they have been planted, a brown ſeed appears on the top; then it is fit to be cut; for if they ſtand longer in the ground their juice diminiſhes, dries up, and turns ſour. The juice, if taken immediately after it is drawn, cauſes a looſeneſs. The low grounds are much more convenient for the planting of ſugar-reeds than the hills, eſpecially near the river ſide, where the banks are overflown by the ſtream. There are a certain kind of winged worms, called Guirapeakoka by the Brazilians, and Pao de Galinha by the Portugueſe, which are great enemies to the ſugar-canes, eſpecially in moiſt grounds, where they gnaw and conſume the roots. The ſugar, which is the product of theſe canes, is not procured without a great deal of toil and labour, in which, for the moſt part, are employed ſlaves, under the tuition of certain overſeers appointed by the maſters of the ſugar-mills, who were for the moſt part Portugueſe, the Dutch being hitherto not arrived to the utmoſt perfection in that art. In the captainſhip of Pernambuko, many fine Ingenhos or ſugar-mills, with their adjacent plantations, were erected for this purpoſe, amounting, in all, to above one hundred in number, and the labourers, negroes, and other African ſlaves thereunto belonging, to near forty thouſand. The whole yearly product of ſugar of the Dutch Brazil is computed to be betwixt two hundred and two hundred and fifty thouſand cheſts.

In the year 1642, one Gillin Venant brought ſome indigo-ſeed from the American iſlands into Brazil, who having certain lands aſſigned him near the ſmall river Mercera, and being provided with all other conveniences by the ſpecial command of the great council, erected ſeveral plantations for the producing of Aniel or indigo: but it being found by experience, that the piſmires conſumed moſt of the leaves, the ſaid Mr. Venant, by employing many labourers and negroes, to deſtroy theſe piſmires with burning and digging, at laſt ſo well cleared the ground, that the indigo came to its full perfection, ſeveral patterns of which were ſent into Holland. Mr. Venant having made an agreement with Mr. Chriſtopher Eyerſhettel to inſtruct him in the moſt neceſſary points relating to the coagulating the indigo, he was treating with the great council concerning certain grounds for the planting of indigo, ſo that there was a fair proſpect of bringing this deſign to a conſiderable perfection here, if the ſame had not been prevented by the inteſtine war.

The wild aniel, which grows in Brazil in great plenty, has a great reſemblance to the true indigo in outward appearance, but affords no good colours. Some pretend to have ſeen alſo a kind of wild cochineal in Brazil, and the ground would produce good ſtore of cotton, but that the inhabitants draw much more profit from the ſugar-plantations.

Some

Some ginger is likewiſe planted in Brazil, but not in ſuch quantities as to be tranſported into other parts, no more than the Mechoaconna, China, and ſome other medicinal roots; and the Herba de Cubra or Herba de Noſſa Senhora, which is looked upon as an infallible remedy againſt the gravel; and the root called Paquoquanha, which is the univerſal medicine of the Brazilians. There are alſo many tranſplanted hither from other parts, as ginger, tobacco, rice, cotton, Turkey wheat, aniel, or indigo, and the ſugar-reeds were firſt of all tranſported by the Portugueſe from the Canary Iſlands. The fruits in daily uſe among the inhabitants, are Ananas, Bananas, Mangaba, Akaju, Arakou great and ſmall, Guajaba, divers kinds of Murukuja, Ibapiranga, Mazaxanduba, Akaja, Aratiku, Guitakori, Biringela, Mamaon, Cocoa-nuts, and ſeveral ſorts of Indian figs. The roots chiefly in uſe, are the Batatas, Nhambi and Umbi, and the Indian acorns, called Tembi, which are of a delicious taſte.

The whole country of Brazil is extremely fertile and pleaſant, being watered by many rivers and ſtanding waters, moſt of which ariſe from the hills, and paſs through ſpacious plains, the laſt of which are clayey and marſhy grounds (called Vergeas by the Portugueſe), which produce all ſorts of fruit, but eſpecially ſugar-canes, in great plenty. Their meadows and paſture-grounds do not appear ſo pleaſant in the ſummer as in the rainy ſeaſon, when they are very green; wheat and rye grow ſoon rank here, which is occaſioned partly by the nature of the ſoil, and partly by the heat of the ſun; to prevent which, they never let their grounds lie fallow, and manure them with ſand inſtead of dung. The ſame muſt be obſerved with all other foreign ſeeds here, that require to be kept a conſiderable time under-ground. In February and March (which is the rainy and winter-ſeaſon of this climate), they ſow their ſeeds, and that towards evening, not by day-time, or about midnight. They take great care not to plant any thing too deep under-ground; for whatever is planted beyond the ſun-beams ſeldom produces any fruit, which our people have learned to their coſt. There is a remarkable difference betwixt the ſeeds and fruits which are produced on the hills, and thoſe of the marſhy grounds, as to their time of ripening; though the cocoa and palm-trees are tranſplanted here without the leaſt regard to their age, bigneſs, or the ſeaſon, and grow very well. Moſt of their own trees and ſhrubs bear flowers and fruit throughout the whole year, ſo that, at one and the ſame time, you enjoy the benefit of the ſpring, ſummer, and winter; the like is obſervable in the vines, citron, lemon, and other trees, brought by the Portugueſe from Angola into Brazil, and in ſeveral roots, pot-herbs, and other fruits, tranſplanted thither by the Dutch. Thoſe who covet ripe grapes throughout the whole year, do only prune their vines at divers times, which produce a fine grape, and a wine as ſweet as molaſſes. The worſt is, that they are much infeſted by the piſmires, which ſuck all the juice, and leave nothing but the huſks to the owners; ſeveral other ſorts of trees have been tranſplanted thither from Holland, which thrive extremely, and bear very good fruit.

The ſtanding waters of Brazil are, for the moſt part, covered on the ſurface with green ſhrubs and herbs, that they appear rather like land than water, and feed both land and water-fowl. At the entrance of moſt of their rivers (where you meet with vaſt quantities of oyſters and crabs), the country is ſo overſtocked with a certain kind of a tree called Guaparaba, or Mangle, by the Brazilians, that they render it impaſſable for travellers. In ſhort, the whole Brazil is well ſtored with trees, ſhrubs, and uſeful woods, there being ſcarce a place, either in the valleys or riſing grounds, which are clayey, or among the hills, which do not produce ſomething that is uſeful; and that in ſuch plenty, that the Portugueſe, after their firſt arrival here, were forced to cut their way through theſe trees with

with incredible pains and charge. The hills furniſh alſo great ſtore of wood, which is of a very good ſcent, and is uſed by dyers; as for inſtance the Brazil wood, which is from hence tranſported into Europe.

The ſtem or trunk of this tree is knotty, of a very agreeable ſcent, and ſome ies two or three fathoms thick: its leaves are dark-green, and ſmall, thorny at the nd, and grow on ſmall ſtalks; the bark, which is about three inches thick, is generally t: ken from the trunk, before it is fitted for ſale: it ſprouts from its own root, and produce neither bloſſom nor fruit. Moſt of theſe trees grow about ten or twelve leagues fro the ſea-ſide, where they cut them down, take off the bark, and carry them upon waggons to the ſea-ſhore, from whence they are tranſported into Europe for the uſe of the dyers chiefly; the Brazilians call this tree for its excellency's ſake, Ibirapitanga. After the Dutch had conquered part of Brazil, they found great ſtore of this wood ready cut and fitted for uſe by the Portugueſe, who ſold it to the Dutch company; ſince which time it was cut down promiſcuouſly by the Portugueſe as well as the Dutch, and ſuch vaſt quantities of it were tranſported in 1646 and 1647, that the members of the great council of the Dutch Brazil, Mr. Henry Hamel, Bulleſtraet and Kodde, being made ſenſible of the deſtructive methods that were made uſe of in cutting this wood, which muſt in time have tended to the utter extirpation of theſe trees, did by their proclamation regulate theſe abuſes. They have another kind of very fine wood in Brazil, called by the Portugueſe, Pao Santo, as likewiſe thoſe called Gitayba, Vio Wood, Maſſaranduba, cedar, and divers other woods fit for cabinet-work. The tree called Tataiba by the Portugueſe, the wood of which the Portugueſe call Pao Amaretto, affords a yellow colour for the dyers. The bark of the tree Araiba is of an aſh colour, but boiled in water gives a red tincture. The tree Jakauranda, or Jaturiba, or the white-cedar, as well as ſeveral other trees, furniſh the inhabitants with materials for building, being very hard and durable. The Brazilians make alſo matches and a kind of hemp out of the bark of ſome trees.

The moſt barren places of Brazil do produce a certain kind of trees without leaves, which they call Timbo or Tibo; out of theſe they make hoops, by reaſon of their flexibility, and the bark ſerves the ſhip-carpenters inſtead of hemp.

The Brazilians light their fires by ſtriking two pieces of wood, of the trees Karaguata Guacu and Imbaiba, together, as we do with our flint-ſtones and iron. The firſt is a tree of an admirable nature: its ſtem grows fourteen or fifteen foot high, which being come to its full perfection, bears yellow flowers on the top, and abundance of large, long and thick leaves. Out of the ſtem they make ſticks to hang their mattraſſes on, the leaves afford the fiſhermen ſtuff for yarn to make nets of; and out of the leaves iſſues a certain unctuous liquor, which ſerves inſtead of ſoap. The trees and woods of Brazil are never ſeen to be covered all over with leaves at a time; but whilſt ſome caſt their leaves, you ſee others bring forth new ones; nay, ſometimes one tree is half covered with leaves, and bare on the other ſide. Brazil likewiſe abounds in ſhrubs and reeds, ſome of which creep along the grounds, whilſt others twiſt themſelves up to the top of the higheſt trees, which affords a very agreeable ſpectacle at a diſtance, and a pleaſing ſhadow to men and beaſts, tired with the heat, hunting, or any other exerciſe.

Among other fruits, Brazil produces very fine oranges of divers kinds; the other vegetables, which, beſides the mandioka root, ſerve for the ſuſtenance of the inhabitants, are rice, millet, Patatas, Ananas, Bananas, melons, pompions, water-melons, cucumbers, beans, figs, Bakovas, Marakuja, Mangavas, Arataku, Ape, cabbages, raddiſh, lettuce, purſlane, parſley, chervel, carrots, &c.

Nothing is ſo much in requeſt among the Brazilians, as the Akaju, a kind of wild apple, which furniſhes them both with food and drink, being very juicy; ſo that this tree ſeems by kind nature to have been planted here for the peculiar comfort of the inhabitants: it ſpreads its branches round about in a great compaſs, but does not grow to that height as many other trees in this country: its wood, which is very ſolid, is very fit for the building of ſhips, from whence iſſues a very clear gum in the ſummer-ſeaſon. Its leaves, which are red, reſemble thoſe of our walnut-trees, eſpecially when they firſt ſprout forth in the ſpring, but are of a much finer ſcent, which they never loſe but by being diſtilled. The bloſſom is a flower conſiſting of five ſmall leaves, which grow to the number of about a hundred in one cluſter; each of theſe flowers has a ſtalk, with a ſmall head in the middle. At their firſt coming out, which is in September, they are very white, but turn ſoon after to a roſe colour; they are very odoriferous, and fill all the circumjacent grounds with their agreeable ſmell. This tree bears a double fruit, viz. an apple, and a cheſnut: the apple is of an oval figure, very juicy; its pulp ſpongy, full of kernels, and of a tartiſh taſte. The juice taints linen with a certain colour, ſuch as we call iron-molds, which is never to be taken out, but returns as often as theſe trees ſtand in bloſſoms; it is of a whitiſh colour after it is preſſed out, and tartiſh, but changes both its colour and taſte by fermentation, and becomes very ſtrong. The rind of the apple, which is very thin, is white mixed with red. The cheſnut, which grows on the top of the apple in the ſhape of a lamb's kidney, is covered with a thin ſkin, over which grows a thick aſh-coloured ſhell, full of a hot, ſharp and burning oil, which bites the tongue; to correct which, they roaſt the cheſnut in the aſhes, break the ſhell with a hammer, and eat the pith or kernel, which taſtes better than a common cheſnut, and will keep good for ſeveral years. The Brazilians are ſo fond of this fruit, that they often fight for it; then they encamp among theſe trees, and remove not till they have conſumed all thereabouts, unleſs they are forced thereunto by the enemy. They number the years of their ages by this tree, becauſe it bears fruit but once a year, which ripens towards the latter end of December or in January, there being none to be found on the trees after February in Pernambuko. About the time the ſun returns back from the tropick of Capricorn, it commonly rains in Brazil, which the inhabitants call the rains of Akaju, for, if the ſame happens to be moderate, they promiſe themſelves great plenty of this fruit. The cheſnuts are hot in the ſecond degree; if eaten raw with wine and ſalt, they taſte like walnuts, but if roaſted or preſerved with ſugar, they are of a delicious taſte. The oil which is taken out of the ſhell, is an excellent remedy againſt the hair-worm; it is hot in the third and fourth degree, and frequently applied to cancers and other malignant ulcers. The gum, powdered and taken in a convenient vehicle, opens the obſtructions of the womb. The juice of the apple furniſhes them with good cyder.

There are many ſorts of palm-trees to be met with in Brazil, ſome of which grow wild, ſome are planted and cultivated by the inhabitants. Among the firſt the palm-tree called Pindava by the Brazilians, which grows very tall, claims the preference, of which there are whole woods to be ſeen in the open country. In the more remote and unfrequented places, grows a certain palm-tree called Karanatham and Anachekaira by the Brazilians, and by an Arabick word among the Portugueſe, Tamar, or date, which this fruit reſembles. The tree grows as high as a common date-tree, its wood is red and very ſolid, but of no great uſe. The bark is grey, which from the ground upwards to a certain part of the tree is diſtinguiſhed by many ſcales, which are largeſt at

the bottom, and ſmall by degrees, till about the middle of the tree they quite diſappear; theſe ſcales being nothing elſe but the remnants of the branches, which fall off by degrees, as the tree grows higher; and continue only towards the top, ſpread round about the ſtem, like the African date-tree, but much finer. Each of theſe branches is about two or three foot long, flat on two ſides, and covered with ſmall thorns; they grow to a vaſt thickneſs. At the end of each branch grows one ſingle leaf, which is very large and green, plaited like a fan, and about the middle divided into ſeveral other leaves, like thoſe of the common date-tree; each of theſe laſt is about two foot long. Betwixt thoſe branches, on which grow the leaves, ſpring forth other branches of four or five foot in length, and theſe again are full of other white ſprouts, which flowers, with three pale yellow leaves; theſe produce a fruit of the bigneſs of an olive, which is green, bitter, and not eatable, but turn black when they ripen, which is in February. The Brazilians call this fruit Tirade, and eat it raw; but our people never took any fancy to it. With the leaves they cover their huts, and make baſkets of them. The palm-tree called Pindava by the Brazilians, has inſtead of the bark a white and rough wooden ſubſtance, which contains a ſpongy ſulphureous ſubſtance, out of which the Brazilians prepare a ſtrong lee. This tree is for the reſt but of ſmall uſe, being rather eſteemed for ornament's ſake, by reaſon of its height and fine ſpreading branches, which however furniſh the inhabitants with leaves to cover their huts, and to make baſkets of; the Portugueſe plant them near their walks and harbours, and round their churches. The leaves of this tree do not hang downwards like thoſe of the cocoa-tree, but ſtand upright. Juſt by theſe leaves ſprout certain branches, on which hang bunches of flowers, which produce the fruit, reſembling in ſhape and bigneſs one of our largeſt hen-eggs, being ſharp at the end, and faſtened to the bunch on the other like the pine-apple. The outſide is of a green yellow colour, inclining to a cheſnut; being compoſed of a hairy ſubſtance like that of the cocoa-nuts, but not near ſo thick, ſcarce exceeding in thickneſs two egg-ſhells. Under this ſhell is an inſipid ſaffron yellow pulp, which, however, is uſed by the negroes, who eat it with farinha. Within this pulp is a hard nut, of an oval figure, not unlike the cocoa-nut, of the ſame thickneſs, but without holes; it contains a pith or kernel, as white and big as a walnut, but is not near ſo ſweet as the cocoa-nut; they are eaten both by the natives and ſtrangers, who are furniſhed with them throughout the whole year, and called by the Brazilians, Inajamiri, i. e. the ſmall cocoa-nut. The kernels of theſe nuts furniſh them likewiſe with a white cooling oil, which is uſed inſtead of our oil of roſes, and when freſh drawn mixed among their ſallads, but when decayed, in their lamps. The ſhell affords an oil of the ſame nature, but not altogether ſo cooling. Out of the top of the tree flows a fine and odoriferous gum, uſed here inſtead of gum-arabic; they alſo pick a certain pith or marrow out of the top, which has a taſte like our walnuts, and, when eaten with bread and ſalt, is accounted very nouriſhing.

There alſo grow cocoa-trees in Brazil, called by the natives Inajaguacuiba, and the fruit Inajaguacu. They are very different from the juſt-now-mentioned Pindava-tree, their trunk or ſtem being ſeldom ſtraight, but commonly crooked, ſometimes from ſeven to fourteen foot thick, and fifty foot high; it is without branches, having only fifteen or twenty leaves round the top, each of fifteen foot long. They have alſo good ſtore of the common date-trees both male and female. The vaſt quantity of piſmires wherewith Brazil abounds, are great enemies to all the products of their grounds, which they endeavour to deſtroy by fire and water; it is further to be obſerved, that ſome fruits as well as creatures, which are accounted venomous in Europe, are commonly eaten in Brazil; as, on the other hand, certain things are poiſonous there, which are not in Europe, For they have a kind of frogs, and ſome fiſhes, which are extremely

poiſonous; whereas a certain ſort of great piſmires and adders, toads, worms, and wild rats, are eaten by the natives, without any harm.

The moſt univerſal food of the Brazilians, is the flour made of the mandioka-root, called by them Vi, and Farinha de Mandioka by the Portugueſe, as has been ſhewn more at large before. They feed alſo upon the fleſh of ſeveral wild beaſts and birds, crabs, craw-fiſhes, fruits, herbage; their meat, whether boiled or roaſted, they eat half raw. They boil in earthen-pots, called Kamu, which they make themſelves. Their fleſh they roaſt thus; they dig a hole in the ground, the bottom of which they cover with leaves of trees, and upon them lay meat to be roaſted, which being covered with the ſame leaves, they throw ſand or earth upon them. Upon this they light a good fire, which they continue till they think it ſufficiently roaſted. If they hit it right, it eats very well, exceeding in goodneſs all other roaſted meats; they call it Biaribi. Their fiſhes, whether roaſted or boiled, they eat with Inquitaya, that is, ſalt and pepper. They boil their crabs or craw-fiſhes with ſalt, and eat them with inquitaya. Small fiſhes they wrap in leaves, and roaſt them in the aſhes. They take the flour of the mandioka root with their three hindermoſt fingers of the right-hand, and ſo throw it into the mouth; in the ſame manner they do with beans, and ſuch like things; they eat often, both by day and night, they having no ſet times for their meals, without the leaſt noiſe, or any drink, which they reſerve till after they have done. They ſeldom uſe any ſpoons, but inſtead of that their fingers, or ſome oyſter-ſhell or other ſerves their turn. The fleſh of ſeveral wild beaſts is much in eſteem among the Brazilians; as for inſtance, that of the great and leſſer wild boars; they have a bunch like a camel on their backs, and are very good food, as well as the fleſh of the river pigs, called Kapiverres by the Portugueſe, which is of a very agreeable taſte.

The moſt general and moſt wholeſome liquor uſed among the Brazilians, is their river or fountain-water, which, by reaſon of its coolneſs, is a great refreſhment to ſuch as are tired by the heat, or the fatigues of other exerciſes; this is chiefly to be underſtood of their ſpring-water, which, though uſed here in great quantities, never cauſes any griping in the guts, or other inconveniences in the bowels, but, on the contrary, occaſions a good appetite, and is ſoon evacuated by ſweating.

The waters of the rivers Paray and Paratybi, are accounted a good remedy againſt the ſtone and gout, which is the reaſon that many arrive to the age of above one hundred years, who drink nothing but thoſe waters, and are never troubled with any of thoſe diſtempers; for thoſe who are advanced in age are as nice in the different taſtes of thoſe waters as the Europeans in their wines; and they look upon thoſe as indiſcreet who uſe the waters without diſtinction. For, ſince moſt of their ſprings ariſe among the high eaſtern hills, they receive no addition either from the ſnows or any metallic bodies, and, being well digeſted and purged from their dregs by the heat of the ſun-beams, they are very clear and wholeſome; though it muſt be confeſſed, that in the winter-months, ſome waters, by reaſon of the rains, are not fine and cool as during the ſummer-ſeaſon. The negroes make ſometimes a naſty mixture of black-ſugar and water only, without the leaſt fermentation, which they call Garapa; this, as it is very cheap, ſo both men and women ſit at it for twenty-four hours together, ſpending their time in drinking, ſinging, and dancing, but ſeldom quarrel, unleſs they have conceived ſome jealouſy of one another. Sometimes they add to it ſome leaves of the Akaju-tree, which, by reaſon of their hot quality, make it the more heady. The Portugueſe and Dutch frequently make a kind of ſorbette, of water, ſugar, and lemons. Others pour water upon certain herbs; others put a lemon only in water. But beſides theſe, the Braziliäns know how to make wines, or cyder, out of ſeveral roots and fruits, which they

drink at their merry-meetings; eſpecially of the Bakovas, Ananas, Mangaba, Janipaba, Karaguata, &c. For though the vines here bear grapes three times a year, nevertheleſs are they not ſufficient to furniſh them with wine. They make a kind of cyder, called by them Kooi, of the apple Akaju; theſe they ſtamp in a wooden mortar and ſqueeze the juice out with their hands, which after it is ſettled they ſtrain; it appears at firſt like milk, but turns to a pale colour in a few days; its taſte is tartiſh, and apt to ſeize the head if drank in any quantity; after ſome time it turns ſour, and makes very good vinegar. The wine or liquor called by the Brazilians Aipy, is made two different ways: firſt, the ſlices of the root Aipimakakara, a kind of mandioka, are chewed by old women till they are as fluid as a pap, which they call Karaku; this they put in a pot, and boil it with a good quantity of water, ſtirring it continually till they think it fit for expreſſion, which done, they call it Kaviaraku, and drink it luke-warm. Or elſe they take the ſame root purged and ſliced in thin pieces, which they ſtamp and boil with water as before, which produces a whitiſh liquor, not unlike our butter-milk or whey; they drink it likewiſe warm, its taſte being agreeable enough; they call it Kacimakaxera, though both kinds are generally comprehended under the name of Aipy. The liquor called Pakoby is made out of the fruit of the tree Pakobete. What the Portugueſe call Vinho da Millo, is a liquor called Abaty by the Brazilians, and made of barley and Turkey wheat, called maize by the Indians; the liquor Nandi has alſo derived its name from that excellent fruit called Nana of Ananas, being the ſtrongeſt of all their wines or cyders. There is another ſort of liquor called Vinho da Batatas by the Portugueſe, becauſe it is made of the root Batatas: the natives call it Jetici. Thus the liquors called Beeutingui and Tipiaci, are both made out of the farinha of the mandioka root, viz. of the Beju and Tepioja.

The Brazilians are alſo great admirers of French or Rheniſh brandy, called by them Kacitata, and ſwallow it very greedily as often as they can come at it. They are no leſs fond of tobacco, the herb of which they call Petima, and the leaves Petimaoba. After they have dried the leaves in the air, they lay them before the fire, to render them the more fit for cutting. They ſmoke in pipes made of the ſhell of the nut Pindoba, or of the Urukuruiba, Jocara, Aqua, or ſuch like; to wit, they cut a hole in one end of the ſhell, take out the kernel, and, after they have poliſhed them, put a wooden pipe or piece of reed in the hole. The Tapoyers uſe very large pipes made of ſtone, wood, or clay, the holes of which are ſo big, that they contain a handful of tobacco at a time. Sometimes the Brazilians make uſe of our European pipes, called by them Amrupetunbuaba, and Broken Katunbaba by the Portugueſe, and Katgebouw by the Dutch. Whenever the Tapoyers, eſpecially thoſe inhabiting the villages, deſcended from the Tapoyers called Kariri, prepare the liquors Akavi and Aipy, it is done at the ſame time; then a day being appointed for a general merry-meeting, they meet early in the morning at the firſt houſe of the village they belong to, where they conſume moſt of the liquor, and make themſelves merry with dancing; this done, they go to the next houſe, where they play the ſame game, and ſo from houſe to houſe, till nothing be left or they can drink no longer. When they find themſelves overcharged with liquor, they ſpew, and fall to drinking again; and thus, he who can ſpew and drink moſt, is accounted the braveſt fellow of the company.

Of the coaſt of Brazil.

On the north-weſt coaſt of Brazil are ſeveral conſiderable ſalt-pits: that near the houſe called the Deſert, is about three or four leagues diſtant from the river Aguarama, of which one branch extends to the eaſt, and diſcharges its water in this ſalt-pit with a ſpring-tide, which is here commonly with the new moon. It is about five hundred and fifty paces from

from the ſea-ſhore, and receives no other water but from the river Aguarama. There is no bay or harbour near it, but only a flat ſandy bottom for about half a league diſtance from the ſhore, where you may anchor at three fathom deep. The land-wind which conſtantly blows on this coaſt, commonly ceaſes towards evening, ſo that the veſſels take the opportunity of the night to load ſalt. This ſalt-pit produces every month a certain quantity of ſalt, provided they be careful to ſhut their ſluices as ſoon as the ſame is filled with water, for elſe they are in danger of loſing what they had got before, by the next high-tide. To the eaſt of this ſalt-pit are the famous rocks called Baxos, which at low-water may be ſeen from thence; they extend about three leagues deep in the ſea, but do not begin till about a league from the ſhore, betwixt which and the rocks there is a paſſage, where you have ten foot depth at low-water. It ebbs here with the loweſt tide about eight foot, and a weſt-ſouth-weſt wind raiſes the water to the higheſt.

About five or ſix leagues to the weſt of the houſe called the Deſert, is the great ſalt-pit Karwaratama, which receiving its water from the ſea, and being detained by ſluices, produces very good ſalt in three weeks' time. Five leagues further to the weſt is the river Maritouva, the ſecond in rank in thoſe weſtern parts, but has not above twelve foot water at high-tide. On its eaſt point, not above half a league within the mouth, is a very convenient ſalt-pit: theſe ſalt-pits are computed to be manageable with the aſſiſtance only of ten or twelve negroes, ten chriſtians, and about thirty Brazilians, and to afford two thouſand tuns of ſalt per annum, which may be tranſported from thence into the other parts of the Dutch Brazil in ſmall barks, during the ſummer ſeaſon. About half way betwixt Rio Grande and Siara, as likewiſe in Siara, near the river Wapanien, are likewiſe ſeveral Salinas or ſalt-pits.

The chief traffic of Brazil conſiſts in ſugar, Brazil-wood, and ſuch like; as alſo in tobacco, hides, preſerves, ginger, and cotton, which grows wild here; ſome indigo was likewiſe planted there before my departure; but among theſe, the ſugar and Brazil-wood are ſtaple commodities. For ſince the tobacco began to be tranſported into Holland from the American iſlands, the planting of it was neglected in Brazil, where labourers' wages being exceſſive high, they could draw much more profit from the ſugar, of which, according to computation, betwixt twenty and twenty-five thouſand cheſts were yearly made only in the ſugar-mills of the Dutch Brazil, if the harveſt proves very good.

The inhabitants of Brazil may at preſent be divided into free-born ſubjects and ſlaves; and theſe again conſiſt of divers nations, both natives and foreigners. The free inhabitants of Brazil were the Dutch, Portugueſe, and Brazilians, the laſt, the natives of the country. But the Portugueſe did not only ſurpaſs all the reſt, at leaſt ten to one in number, during my abode in Brazil, but alſo were in poſſeſſion of all the ſugar-mills and lands, except what was poſſeſſed by a very few Dutch, who had applied themſelves to ſugar-planting, but were for the moſt part ruined by the inteſtine war, being forced to leave all behind them in the country: beſides thoſe of the free inhabitants, who made it their buſineſs to manure the grounds, there were many merchants, factors, and handicrafts-men: the merchants ſold their commodities generally with vaſt profit, and would have queſtionleſs been rich men, had they not vended their goods upon credit to the Portugueſe, who were reſolved never to pay them, as the event has ſufficiently ſhewn. The handicrafts-men were able to get three, four, five, nay, ſix gilders a day, ſo that many returned very rich to Holland. Thoſe that kept public-houſes and chandler-ſhops were likewiſe great gainers here, and carried off abundance of ready money. The officers in the company's ſervice whether civil or military, were

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likewiſe punctually paid, which made many who had lived in the country before the beginning of the civil war, and had ſerved the company before, take ſervice again, who were all entertained according to their reſpective qualities and former ſtations.

Among the free inhabitants of Brazil that were not in the company's ſervice, the Jews were the moſt conſiderable in number, who had tranſplanted themſelves thither from Holland. They had a vaſt traffic beyond all the reſt; they purchaſed ſugar-mills and built ſtately houſes in the Receif. They were all traders, which would have been of great conſequence to the Dutch Brazil, had they kept themſelves within the due bounds of traffic.

The ſlaves of Dutch Brazil were either negroes or natives of the country; the laſt of which were either bought in Maranhaon being priſoners of war, or from the Tapoyers, who likewiſe had made them captives, and otherwiſe, according to their cuſtom, would have put them to death. For it being reſolved immediately, at the firſt entrance of the Dutch in Brazil, that none of the natives ſhould be made ſlaves (except they were either bought from the Tapoyers or brought from Maranhaon) the Brazilians were ſettled in certain villages to enjoy their own liberty under certain limitations, and permiſſion was given them to aſſiſt the Portugueſe in the management of their mills and grounds, for certain wages appointed for that purpoſe; by which means many Alicas or villages were filled with Brazilians in Parayba and Rio Grande, who during the time of our government enjoyed the ſweets of a perfect liberty.

Vaſt numbers of negroes of divers nations were entertained in the Receif, and the open country, for the manuring of the ground, and working in the ſugar-mills of the Portugueſe, which could not be done without them, by reaſon of the extremity of the heat of the climate, and the incredible toils they are fain to undergo; ſo that in my time near forty thouſand negroes were employed in the ſugar-mills betwixt Rio Grande and St. Franciſco. Moſt of theſe negroes are brought hither from the kingdoms of Congo, Angola, and Guinea; a black ſhining ſkin, flat noſe, thick lips, and ſhort-curled hair, is their chief beauty. The luſtieſt and moſt laborious uſed in time of good trade to be ſold in Brazil for ſeventy, eighty, or one hundred pieces of eight, nay, ſometimes for one thouſand four hundred or one thouſand five hundred gilders, but theſe underſtood ſomething more than ordinary: but when trade began to decay, they were ſold for forty pieces of eight. There was ſcarce a Hollander of any ſubſtance but what had ſeveral of theſe ſlaves. They are moſt miſerably and beaſtly treated by the Portugueſe, though at the ſame time it muſt be confeſſed that it is abſolutely neceſſary they ſhould be kept under a ſtrict diſcipline; for they are full of rogueries, ſuperſtitious to the higheſt degree, and ſorcerers: they would often pretend to tell us what ſhips were at ſea from Holland for Brazil, though they were yet on the other ſide of the line, and how to recover ſtolen goods. I remember I happened once to be at a friend's houſe of mine, when I ſaw an old negro enter the kitchen, who came thither to cure a negro-ſlave of his illneſs, which he told us was occaſioned by witchcraft. He made the patient riſe from his chair, and taking a piece of wood from the fire-hearth, he ordered him to lick three times with his tongue that end which was burning-hot with the glowing coals. The ſame end of the wood he afterwards extinguiſhed in a baſon of water, and rubbed the coals in it, till it turned as black as ink. This he ordered the ſick negro to drink off at a draught, which he did accordingly, and was immediately ſeiſed with a ſlight griping in the guts. This done he rubbed both his ſides, and taking hold with his hand of a piece of fleſh and fat above the hip, he made an inciſion there with a knife he pulled out of his pocket, of two inches deep, out of which he drew a bundle of hair and rags, with a little of

the black water that was left he washed the wound, which soon after was healed, and the patient cured. They are very dexterous at swimming and diving, and will fetch a single piece of eight from the bottom of the sea, where it is very deep. They are also excellent fishermen, and get a great deal of money by it. They tie three or four great pieces of wood together, this they manage with one oar, and upon it go a good way into the sea, where they catch great quantities of fish with their hooks, and so return. It happened in my time, that a certain negro, who was very expert in fishing, was sold three times in a little while; this he took so much to heart, that the next time he went thus out a fishing, he tied a stone to his leg and drowned himself. Another negro having conceived a hatred against his master cut his throat, cut out his tongue, and made a house of office of his mouth, according to his own confession; he was broken alive upon the wheel, which he endured with an incredible obstinacy. A negro woman was brought to bed in my time of a child, the hair and skin of which were not black, but red. I saw also a young lad born from negro parents, whose skin was white, and his hair and eye-brows the like, but curled, with a flat nose like the other negroes. Sometimes I have seen old negroes with long grey beards and hair, which looks very fine.

The natives of Brazil consists of divers nations, distinguished by their proper names, to wit, the Tupinambos, Tobajaras, Petiguaras, and Tapuijas, or Tapuyers, or Tapoyers. The three first use one and the same language, and differ only in the dialect; but the last are subdivided into several nations, differing both in manners and tongue. The Brazilian men, which lived among us and the Portuguese, are middle-sized, strong and well-made, with broad shoulders. They have black eyes, a wide mouth, with black curled hair, and a flat nose; the last of which is not natural to them, but the parents, looking upon it as a great beauty, squeeze their children's noses flat, whilst they are very young. They paint their bodies, and some likewise their faces with divers colours; they have generally no hair about their mouth, though some have black beards. Their women are likewise of a middle stature, well limbed, and not ill-featured; they have likewise a black hair, but are not born black, but by the heat of the sun-beams acquire by degrees a yellow brown colour. The Brazilians come soon to maturity, and arrive to a great age, and that without distempers; they also seldom become grey, which is likewise observable in many European inhabitants here, who come to the age of one hundred or one hundred and twenty years. This must be chiefly attributed to the temperature of the climate, which is such, that in former times many Spaniards that laboured under some lingering distemper, whether in Spain or the East Indies, used to come to Brazil to partake of the benefit of that excellent air and water; it is true, most of the children of foreigners are troubled with lingering sicknesses, so that scarce one in three arrives to a state of manhood; but this must not be attributed to the air, but rather to the bad nourishment. Few cripples or crooked people are to be met with among the Brazilians, they being generally very straight and nimble, which is the more admirable, because they never do their children up in swathling cloaths, except their feet, looking upon it as unwholesome.

Before the Dutch got footing in Brazil, the Portuguese had made all the natives their slaves, and looked upon it as the greatest piece of policy quite to extirpate them, which they did so effectually, that whereas about one hundred years ago, the captainships of Rio Grande alone could raise one hundred thousand fighting men, scarce three hundred were to be met with in 1645 to 1646, which had created a mortal hatred in the Brazilians against the Portuguese; though it must also be confessed, that the late war and some epidemical distempers did sweep away many of the natives.

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The remainders of them lived in certain Aldens or villages aſſigned them for that purpoſe, where they had their plantations; beſides which they ſerved the Portugueſe in their ſugar-mills for a certain monthly pay, which furniſhed them with clothes and other neceſſaries. Their huts are made only of wooden ſtalks, covered with palm-tree leaves. They cannot endure the yoke of ſlavery, nor any toil, eſpecially the Tapoyers; they live very quietly among one another, unleſs they get drunk, when they ſometimes ſing and dance day and night. Drunkenneſs is a vice belonging to both ſexes here, of which they are ſo fond, as to be paſt remedy, though this occaſions often quarrels and other enormous vices among them. They are likewiſe much addicted to dancing, which they call Guau; they have ſeveral ways of dancing, one of which is called Urukapi; they commonly ſing whilſt they are dancing. The children divert themſelves with divers ſorts of games, one is called Kurupirara, another Guaibipaie, and a third Guaibiquaibibuku. They will ſleep ſometimes a whole day and night, and would not ſtir then if they did not want victuals. Near their hammocks they keep a fire day and night, in the day to dreſs their victuals, in the night to allay the rawneſs of the air, which here is colder than in moſt parts of Europe, becauſe day and night is almoſt of an equal length here throughout the year.

The inland Brazilians of both ſexes go quite naked, without the leaſt covering. But thoſe inhabiting nearer to the ſea-ſhore, who converſe with the Dutch and Portugueſe, wear only a ſhirt of linen or calico; though, in my time, ſome of the chiefeſt among them began to take a pride to clothe themſelves after the European manner. The wife conſtantly follows her huſband wherever he goes, even in the war. He carries nothing but his arms, but the poor woman is loaden like a mule or ſumpter-horſe. For beſides a great baſket which is tied to her back (called by them Patigua), ſhe has another upon her head, with all the houſehold ſtuff in it, or a great baſket with flour; beſides which, ſeveral other ſmaller veſſels hang on both ſides, wherewith they take up water for their drinking. The child is carried in a piece of calico, which is faſtened to her, and hangs down from her right ſhoulder. It lies there, with its legs wide open, one being ſtretched acroſs the mother's belly, the other over her ſhoulder. After all this, ſhe carries a parrot or ape in one hand, and leads a dog in a ſtring with the other. Thus they proceed on their journey, without any farther proviſion, except a ſmall quantity of farinha; the hedge or open fields ſerve inſtead of inns, which furniſh them with neceſſary food, as the rivers and ſprings with drink; and ſo does the tree called Karageata, which contains always ſome rain-water within the hollowneſs of its leaves, to the great relief of travellers, who, in ſome barren places, do often not meet with a river or ſpring for twelve leagues together. Towards night they hang their hammocks on trees, or elſe faſten them to ſtalks neatly; they make a fire to dreſs their victuals; and againſt the rain defend themſelves with palm-tree leaves. When they are at home, the huſband goes commonly in the morning abroad with his bow and arrow, to ſhoot ſome wild beaſt, or catch birds, or elſe to the ſea-ſide, or next river a fiſhing, whilſt the women are employed in the plantations; ſome women go abroad with their huſbands, and carry home the prey. The wild-beaſts are caught by them in a different manner; ſome they kill with arrows, others they catch in pits dug for that purpoſe, and covered with the leaves of trees, under which is hidden ſome carrion, the ſcent of which draws them to the pit; this they call Petaku. They make alſo certain wooden traps, and uſe divers other ways of catching the wild beaſts, each of which they diſtinguiſh by their proper names. To catch birds they uſe three ſorts of ſnares or nets, called by them Jukana; the firſt ſort catches the birds by the feet, this they call Jukanabiprara; the ſecond entangles them by the neck, which they call

Jukanajuprara; the third enſnares their bodies, called by them Jukanapitereba. They kill the fiſhes with arrows, or catch them with fiſhing-hooks, their baits being commonly worms, crabs, or ſome ſmall fiſhes. They bait the water where they intend to fiſh, with the leaves of Japikai, or with Timpotiana, Tinguy, or with Tinguiri; ſometimes with the fruit called Kururuape, the root Magui, or the bark of the tree Anda, which make the fiſh ſwim on the ſurface of the water like dead, when they take them with a kind of a ſieve, called by them Urupema, made of cane or reed, which they call Uruguiboandipia. Their ſea-fiſh they catch with iron hooks, the bait being ſome carrion; they go a good way into the ſea, only upon three pieces of wood faſtened together, which they call Igapeda, and the Portugueſe, Jangada; the wood is commonly of the tree Apiba.

The Brazilians are not burthened with much houſehold ſtuff, their hammocks being their chiefeſt care in this kind; they call them Ini, are wrought of cotton like network, of about ſix or ſeven foot long, and four broad. When they are going to ſleep, they faſten them either to two beams of their huts, or elſe in the open air to two trees, and ſome diſtance from the ground, for fear of ſome obnoxious creatures, and to avoid the peſtiferous exhalations of the earth. The Tapoyers, called Kariri, have very large hammocks, of twelve or fourteen foot long, which contain four perſons at a time. The Portugueſe women make ſome very fine hammocks, wrought with divers figures in them. In lieu of diſhes and cups they uſe the Kalabaſſek, cut in the middle, which are painted without with a certain red colour, called Uruku, and within with black. Their cans, cups, and mugs, are likewiſe Kalabaſſes of divers kinds, called Kuite, Jaroba, and Kribuka. One of the biggeſt of theſe kalabaſſes hold thirty or thirty-five quarts; this the Brazilians call Kuyaba, but when cut through the middle it is called Kuipeba. The poorer ſort make certain knives they call Ituque, of ſtone, as alſo of cane, which they call Taquoaquia, but the better ſort uſe Dutch knives. Their baſkets they make of palm-tree leaves, they call them Patigua; they have alſo ſome made of reed or cane, theſe are with one general name called Karamemoa. They make alſo large broad baſkets of reeds and branches twiſted together: theſe they call Panaku, and are chiefly uſed for the carrying of the mandioka root. In their journeys they always make uſe of the patigua, but the panaku is uſed by the ſlaves and negroes in the Receif for the conveniency of carriage.

The arms of the Brazilians are only bows, arrows, and wooden clubs. Their bows, which they call Guirapara and Virapara, are made of very hard wood, called Guirapariba and Virapariba: the bow-ſtrings are made of cotton twiſted, and by them called Guirapakuma; the darts they call Uba, and are made of wild cane. The points of theſe darts are either of wood hardened, or of fiſh teeth called Jacru, or of bones or cane well ſharpened; ſome have ſeveral points, others but one.

Being not in the leaſt acquainted with arithmetic, they compute the number of their years and age by the cheſnuts which grow on the fruit Akaju, which cheſnuts they call Akuguakaya, as likewiſe Akajuti and Itamabara, of which they lay one by every year, this tree producing fruit but once each ſeaſon, viz. in December and January. They begin the computation of their years with the riſe of a certain ſtar, called by them Taku, or the Rain-ſtar, which is always there in May; they alſo call the year by the ſame name.

The moſt barbarous of the Brazilians inhabiting the inland countries ſcarce know any thing of religion, or an Almighty Being. They have ſome knowledge remaining of a general deluge, it being their opinion, that the whole race of mankind were extirpated by a general deluge, except one man and his own ſiſter, who being with child

before,

before, they by degrees re-peopled the world. They know not what God is, nay, they have no word expreſſing the ſame, unleſs it be Tuba, which ſignifies as much as ſomething moſt excellent above the reſt; thus they call the thunder Tubakununga, i. e. a noiſe made by the Supreme Excellency, for Akununga implies as much as a noiſe. They are unacquainted with heaven or hell, though they have a tradition among them, that the ſouls do not die with the bodies, but that they are either tranſplanted into devils or ſpirits, or elſe enjoy a great deal of pleaſure with dancing and ſinging in ſome pleaſant fields, which they ſay are behind the mountains. Theſe fields are enjoyed by all the brave men and women, who have killed and eaten many of their enemies; but ſuch as have been idle, and never did any thing of moment, are tortured by the devil, unto whom they give many names, viz. Anhanga, Jurupari, Kurupari, Taguaiba, Temoti, Taubimama. They have, however, ſome ſort of prieſts among them, whoſe buſineſs is to ſacrifice, and to foretel things to come; theſe are eſpecially conſulted when they are to undertake a war or journey; they call them Paye and Pey. They dread ſpirits to the higheſt degree; they call them Kuripira, Taguai, Macachara, Anhanga, Jurapari, and Marangigona, though under different ſignifications: for kuripira implies as much as the god of the mind or heart; macachara, the god or patron of travellers; jurupari and anhanga ſignify the devil; marangigona implies as much as the manes or remainders of the ſoul after death, which are ſo much dreaded by the Brazilians, that ſome of them, upon an imaginary apparition of them, have been ſtruck with ſudden death. They do not perform any worſhip or ceremony to thoſe ſpirits, except that ſome pretend to appeaſe their wrath by certain preſents they faſten to certain ſtakes fixed in the ground for that purpoſe. Some of the Brazilians acknowledge the thunder for the Supreme Being, others the Leſſer Bear in the firmament, others ſome other ſtars. The Potiguaras, a nation among the Brazilians, are accounted ſuch ſorcerers, that they bewitch their enemies even to death: they call this manner of witchcraft Anbamombikoab. The Brazilians that lived among the Portugueſe and Dutch, did in ſome meaſure follow the Chriſtian doctrine, but ſo coldly, that few, when they come to an advanced age, ſhew much zeal for it; becauſe the fundamental articles of our faith are not eaſily imprinted in them, unleſs in their tender years, and when they are remote from their parents. However, ſeveral of the Dutch miniſters, viz. Mr. Doreſlaer, and after him Mr. Thomas Kemp, have had good ſucceſs in converting many of the Brazilians in the Aldeas or villages where they preached, the laſt of theſe two being well verſed in the Brazilian tongue. Neither were Dionyſius Biſcareta, an honeſt old Caſtilian, and Johannes Apricius, leſs remiſs in performing their duty to inſtruct theſe infidels. There were likewiſe three Dutch ſchool-maſters among them, who taught their young people to read and to write, but theſe were forced to leave their aldeas or villages during the laſt inteſtine commotions raiſed by the Portugueſe.

Many diſtempers which are common in Europe are unknown in Brazil: they uſe nothing but ſimple remedies, and laugh at our compoſitions. They are very dextrous in applying their remedies, eſpecially their antidotes: they draw blood by ſuction with horn-cups, by ſcarification, or opening a vein; inſtead of a lancet they uſe the tooth of a lamprey, called by them Kakaon, without which nobody ſtirs abroad. So ſoon as any one of their acquaintance is fallen ill, they all meet, each offering his remedy, which he has found good by his own experience: then they begin to cut and ſlice the moſt muſculous parts of the body, either with the thorns of the tree Karnaiba, or with fiſhes teeth, till they have drawn as much blood as they think fit, and for that purpoſe ſuck the wounds with their mouths, by which means they pretend to draw all ill

humours from the affected part. Vomiting they procure by means of the leaves karnaiba, which being twiſted together, they force down the patient's throat. When all theſe pretended remedies prove ineffectual, they proceed to no others; but after ſome conſultations, quite deſpairing of his recovery, knock him on the head with their clubs, looking upon it more glorious to be thus bravely delivered from their miſery, than to expect death till their laſt gaſp. They exerciſe as much barbarity upon the dead carcaſſes of their friends as of their enemies; upon the firſt out of love, againſt the laſt out of revenge; for they tear them to pieces with their teeth, and eat the fleſh like a dainty bit.

The Brazilian women are extremely fruitful, have very eaſy labours, and rarely miſcarry: for no ſooner is a woman delivered, but up ſhe gets to the next river, and without any farther help waſhes herſelf there: in the meanwhile the huſband keeps the bed for the firſt twenty-four hours, and is made as much of as if he had been lately brought to bed. The mothers lament the death of their infants with howling and crying for three or four days.

They receive their friends after a long journey with open arms and tears, and beating their foreheads againſt their breaſts, in remembrance of the misfortunes they have undergone during their abſence. Though the Brazilians were always ſuppoſed to be deſcended from the race of men-eaters, yet by their converſation with us and other nations, many of them have laid aſide their barbarity, and are become as affable and civilized as moſt of the European nations.

The Tapoyers inhabit the inland country of Brazil to the weſt of theſe countries in the poſſeſſion of the Portugueſe and Dutch, betwixt Rio Grande and the river Siara, as far as Rio St. Franciſco. They are divided into ſeveral nations, diſtinguiſhed both by their language and names: for the Tapoyers bordering upon the utmoſt confines of Pernambuko, are called Kariri, under their king Cerioukejou; the next to them the Karirivaſu, whoſe king was Karopoto; then the Kariryou, and ſo farther the Tararyou; the laſt of which were beſt known unto us; Janduy or John Duwy being their king; though ſome of them lived under the juriſdiction of one Karakara. Divers were governed by other kings, viz. Prityaba, Arigpaygn, Wahaſewajug, Tfering, and Dremenge. Thoſe under king John Duwy inhabit to the weſt beyond Rio Grande, but change their habitations pretty often: about November, December, and January, when the fruit Kajou begins to ripen, they come towards the ſea-ſide, becauſe little of it is to be met with in the inland countries. The Tapoyers are very tall and ſtrong of body, exceeding both the Brazilians and Dutch both in ſtrength and tallneſs by the head and ſhoulders. They are of a dark brown colour, black hair, which hangs all over their ſhoulders, they only ſhaving it on the forehead as far as to the ears. Some are ſhaved according to the European faſhion; the reſt of their bodies they keep without hair, even without eye-brows. Their kings and great men are diſtinguiſhed from the vulgar by the hair of their heads and their nails; the firſt, their kings, were ſhaved in the ſhape of a crown, and have very long nails on their thumbs; but the king's relations or other officers of note, wear long nails on all their fingers, except their thumbs; for long nails is accounted a peculiar ornament among them. The Tapoyers are very ſtrong; prince Maurice being one time in a humour to try their ſtrength and ſkill in fighting with a wild bull, cauſed one to be brought within his ward court, which was ſurrounded with paliſadoes, in order to engage two Tapoyers appointed for that purpoſe. There was a great concourſe of people to ſee this ſpectacle, when on a ſudden two Tapoyers (the reſt with their wives being only ſpectators) came in ſtark naked, without any other arms but their bows and arrows. The bull ſaw them no ſooner

enter, but he made towards them, who being extremely nimble, avoided the ſtrokes he made at them with great dexterity, and in the meanwhile ſo galled his flanks with their arrows, that the beaſt roared moſt terribly, and being all in a foam, ſet upon them with all his vigour, which they avoided by retiring every foot behind a tree that ſtood in the middle of the court, and from thence continued to pierce his ſides with their darts, till finding the beaſt begin to languiſh by the loſs of blood, one of the Tapoyers got upon his back, and laying hold of his horns, threw him upon the ground, and being ſeconded by his comrade, they both killed the bull, roaſted him under-ground with a fire above it, according to their cuſtom, and feaſted upon their meat, with the other Tapoyers there preſent.

The Tapoyers of both ſexes, from the king to the common fellow, go quite naked, only that the men hide their privities, by tying the yard in a little bag or net made of the bark of trees; this they cloſe up with a ſmall ribbon called Takoayn-haa; upon occaſion they untie it, and are more cautious in expoſing their privities than ſome of the Europeans: in the ſame manner do the reſt of the Brazilians inhabiting the inland countries. The women of the Tapoyers cover their privities only with a handful of herbs, or a ſmall branch of a tree, with the leaves on them: this they thruſt barely under a ſmall cord or rope which is faſtened round their middle like girdles: in the ſame manner they cover their backs, but ſo careleſsly, that both before and behind, great part of both is expoſed to view; they change it every day. The men wear alſo a kind of garland made of the feathers of the bird Guara or Kaninde, upon their heads, from which certain feathers of the tail of the bird Arara, or Kamud, hang down behind upon the back; ſome only tie a cotton ſtring round their hands, in which ſome red or blue feathers are faſtened behind; this they call Akan-buaçaba. They have alſo cloaks made of cotton thread, and woven like a net; in each of the holes they ſtick a red feather of the bird Guara, and intermix them with black, green, and yellow feathers of the birds Aakukara, Kazinde, and Arara, which lie as cloſe together as fiſh ſcales: there is a kind of cap on the inſide of this cloak, which with the reſt covers the head, ſhoulders, and the body, ſomewhat below the middle, ſo that it is worn both for ornament and conveniency's ſake, it being proof againſt the rain; they call theſe cloaks in their tongue Guara Abuku. They alſo faſten certain combs of birds with wild honey to their foreheads, theſe they call Aguana.

If their fathers or mothers die, they pull every hair out of their heads; they have holes in their ears ſo big, that you may thruſt a finger into them; in this they wear either a bone of an ape called Nambipaya, or elſe a piece of wood, wrapt up in cotton thread. The men have holes in their under-lips, in which they wear either a cryſtal, ſmaragd, or jaſper, of the bigneſs of a hazel-nut: this ſtone they call Metara, and if it be green or blue, Metarobi; but they are moſt fond of the green ones: they have alſo holes in their cheeks on each ſide of the mouth; in theſe the married men wear a piece of wood of the bigneſs and thickneſs of a good gooſe-quill: ſometimes they wear a ſtone in it called Tembekoareta: in the holes of their noſtrils, ſome have alſo ſuch like ſticks of wood, which they call Apiyata: their bodies are all over painted with a certain juice of brown colour, ſqueezed out of the apple Janipapa; this is even uſed among the women and children. Beſides this, they ſtick feathers of divers colours with wild-honey or maſtick to the ſkin of their bodies, which make them appear at a diſtance like large birds; this they call Akamongui. Thus they adorn their arms with garlands made of red and yellow feathers of ſeveral birds, called Aguami-ranga; ſometimes they mix corals among them, which they call Arakoaya. They

make

make alſo a kind of bracelets of the rind of the fruit Aguay; theſe they wear round their legs, and make a noiſe when they are dancing. Their ſhoes are made of the bark Kuragua, and call them Miapakabas. Some nations of the Tapoyers uſe no bows or arrows, but throw their darts with their hands, but the Kariri have bows. Their clubs are made of very hard wood, are broad on the top, and full of teeth or bones, well ſharpened at the end. Round the handle they wind a piece of calico, or ſome other ſtuff, and at the end a buſh of feathers of the tail of the bird Arara; ſuch another buſh is faſtened round the middle; they call them Atirabebe and Jatirabebe. Their trumpets, which they Kanguenka, are made of men's bones; but thoſe called Nhumbugaku, which are much larger, are of horn; they have alſo another ſort made of cane, called Meumbrapara. The Tapoyers are not ſo good ſoldiers as the reſt of the Brazilians, for upon any ſmart encounter they truſt to their feet, and run away with incredible ſwiftneſs. They neither ſow nor plant, not as much as the mandioka root, their common food being fruits, roots, herbs, and wild beaſts, and ſometimes wild honey, which they take out of the hollow trees. Among all other roots they are extremely fond of a certain kind of wild mandioka root, which riſes up to the height of a ſmall tree. Its ſtem and leaves reſemble the other mandioka root, but it is not near ſo good; the inland Brazilians call it Cuguaçuremia, but thoſe inhabiting near the ſea-ſhore Cuaçumandiiba.

They eat alſo men's fleſh; for if a woman happens to miſcarry, they eat the child immediately, alledging that they cannot beſtow a better grave upon it than the belly, from whence it came. The Tapoyers lead a kind of vagabond life, like ſome of the Arabians, though they always remain within their certain bounds, within the compaſs of which they change their habitations according to the different ſeaſons of the year; they dwell for the moſt part among the woods, and live upon hunting, in which perhaps they excel all other nations; for they will ſhoot a bird flying with their arrows. So ſoon as a woman has conceived, ſhe abſtains from her huſband; after ſhe is brought to bed, ſhe goes into the next wood, where ſhe cuts the child's navel ſtring, with a ſhell, boils it afterwards with the after-burthen, and eats them both. She waſhes herſelf and the child every morning and evening, neither does her huſband keep her company, as long as ſhe gives ſuck, unleſs he has but one wife. If a woman be diſcovered to have had an unlawful commerce with another man, her huſband turns her away, but if they are catched in the act, he may kill them both. The mothers take extraordinary care that the nuptials of their daughters are not conſummated until after they have had their monthly times, which they give notice of to their phyſicians, and theſe to the king, who then gives them licence to go to bed with the bridegroom, who pays his acknowledgement to her mother, for the care ſhe has taken of her daughter. If a young maiden be marriageable, and yet not courted by any, the mother paints her with ſome red colour about the eyes, and thus carries her to the king, who orders her to ſit down near him upon a carpet, and blows the ſmoak of tobacco in her face *. For the reſt of the Tapoyers, are the worſt of all the other Brazilians, being ignorant of any thing that relates to God or religion; neither will they receive any inſtruction of that kind. They have certain prieſts or rather ſorcerers, who pretend to foretel things to come, and to raiſe ſpirits, which they ſay appear to them in the ſhape of a fly, or any ſuch like inſect: when theſe ſpirits diſappear, the women make moſt horrible cries and lamentations, in which conſiſts the main point of their devotion: they avoid night-journeys, for fear of ſerpents and other venomous creatures, neither will they ſet on a journey until the dew be dried up by the

* A very indelicate paſſage is omitted.

ſun-beams. Several nations of the Tapoyers, eſpecially thoſe under king John Duwy, lived always in a good correſpondence with the Dutch, unto whom they afforded at divers times conſiderable aſſiſtance; though they did not ſubmit to their juriſdiction, but were governed by their own kings. King John Duwy had ſixty children by fifty wives, though ſometimes he had not above fourteen wives at a time; theſe Tapoyers having a mortal hatred to the Portugueſe, uſed to kill them wherever they could meet with them. And thus much may ſuffice concerning the manners, way of living, cloaths, &c. of the natives of Brazil; I will now proceed to give you an account of my voyage back into Holland.

Being ſenſible, as I told you before, that things grew worſe and worſe every day with us here, I with much ado got leave to depart, and accordingly the 23d of July 1649, I went aboard the ſhip called the Union, manned with eighty ſailors, under the command of Captain Albert Jants, a native of Groningen. We ſet ſail the ſame day in company of the Blue Eagle, and a yacht called the Brazilian. We left the city of Olinda to the ſouth-weſt in the evening; the 25th we were under 3° 6′ with a north-north-eaſt courſe; we ſailed that day about twenty-eight leagues. The next day we paſſed the line, with very fair weather and wind; we continued our courſe without any remarkable accident until the firſt of Auguſt, when about noon we found ourſelves under 9° 46′, having ſailed twenty-nine leagues in the laſt twenty-four hours. The ſame evening we ſaw the firſt time the north pole ſtar, after we had paſſed the line. The 2d of Auguſt we ſailed twenty-three leagues with a freſh gale, and found ourſelves under 11° 13′. We continued this our courſe with a fair wind, until the 16th of Auguſt, when we were becalmed; we did not advance above ſixty leagues that day; being under 26° we found it exceeding hot. The 20th of Auguſt we had but a ſlender ſouth-eaſt wind; we found ourſelves under 29° 45′; we were ſo much troubled with heat, for want of the cool winds, that the knives in the cabin were ſo hot, that nobody could hold them in his bare hands, nor any one could touch the deck of the ſhip with his hands or feet. We continued our courſe thus until the 29th, when being under 38° 46′, we made about eight leagues that day. The 3d of September, being under the 40° 18′, we eſpied a ſail, which we found to be a veſſel bound for Virginia. Towards evening we were forced to ſtay ſome time for the Brazilian yacht, ſhe having loſt one of her maſts. The next following day in the morning we diſcovered the iſland of Corfu, whither we directed our courſe.

Corfu and Floris are two of the nine iſlands the Dutch commonly call the Flemming Iſlands. The biggeſt is Tercera, being about ſixteen leagues in compaſs. It is very rocky, but fruitful, producing a conſiderable quantity of oxen, and abounding in Canary and other birds. Here is a ſpring that turns wood into ſtone, and ſeveral hot-ſprings, in which you may boil an egg. The ground ſeems to be full of concavities, which is the reaſon of the many earthquakes here, which overturn and deſtroy houſes, men and beaſts. The iſland called the Peake has a rock which reaches to the very clouds, and which, as ſome ſuppoſe, may be parallelled for its height to the peake of the Canary Iſland itſelf. Betwixt the coaſt of Brazil and the ſaid iſlands, the compaſs bears due ſouth and north. We were gone eight degrees farther to the weſt, than we intended. About noon we found ourſelves under 40° 34′. We continued our courſe without any remarkable accident, until the 16th of September, when we ſuppoſed ourſelves to be not far from land, which we diſcovered the ſame evening to the north-north-eaſt of us. The 17th we were becalmed, and catched more fiſh than we were able to eat. The 18th we diſcovered the Iſle of Wight to the north of us, whereabouts one of our ſhips was ſeparated from us; not long after we ſaw the point of Dover. The 19th we paſſed

by Dunkirk and Oſtend with a briſk gale, and about noon ſafely arrived in the road of Fluſſingen. I got immediately aſhore, and after having refreſhed myſelf for five days, I went to Middleburgh, where I likewiſe continued five days. From thence I continued my journey over Dort, Rotterdam, Delft and Harlem, to the famous city of Amſterdam, from whence I undertook this Weſt-India voyage 1640. From Amſterdam I went to Zwell, the birth-place of my father John Nieuhoff, and ſo to Benthem, my native country, where I met with my parents in good health, after ſo many fatigues of a tedious voyage; whilſt I was at Benthem my father died 1651, the 15th of May, in the eighty-fifth year of his age, being lamented by all, by reaſon of his good qualifications.

Some troubleſome people laid the loſs of the Dutch Brazil at the door of the members of the great council, viz. Henry Hamel, Adrian Bulleſtraet and Peter Jande Bas, who left Brazil 1647. It was alledged that the before-mentioned contracts made with the Portugueſe had given them great opportunity of a revolt; for which it was ſaid the ſaid members had received great ſums of money; but it being evident that the ſucceeding members of the great council having taken cogniſance of that affair before their departure, November 6, 1646, and in March 1647, they were fully cleared of theſe accuſations, the ſame having been tranſacted by ſpecial orders of the council of Nineteen in Holland; beſides, that the revolts which were about the ſame time in agitation in Angola, Africa, and the iſland of Ceylon in the Eaſt-Indies, where no ſuch contracts were made, do ſufficiently teſtify that the foundation of this inteſtine war was laid in Portugal, long before the contracts were ſet on foot. What is more ſurpriſing is, how the Portugueſe, conſidering we were pretty well provided with forts and garriſons, durſt think of ſuch an attempt; but the reaſon is plain, for what they wanted in ſtrength or otherwiſe, they were ſupplied with from the Bahia.

The motives that induced the Portugueſe to this revolt, were, the recovery of their liberty, the difference of their language and manners from ours, but eſpecially of religion, which our people had endeavoured to eſtabliſh in Brazil; theſe, with ſome other concurring circumſtances, ſuch as our preſent weakneſs, and the diſpoſition the ſtates were in at that time, to be fairly rid of Brazil, gave them ſufficient encouragement for this attempt. It has been the opinion of ſome, that the firſt ſparks of this rebellion might ſoon have been quenched, by ſeizing ſome of the heads of the Portugueſe faction; but it being apparent from the records, that nothing was left unattempted upon that account, though without any conſiderable ſucceſs, the ſame cannot be imputed to the neglect of the government; the true reaſons of the loſs of Brazil were the ſlender garriſon, and the inconſiderable number of Dutch inhabiting there; nothing being more obvious, than that a conquered country muſt be maintained, either by a ſufficient military force, or ſtrong colonies; the laſt of which was the conſtant practice of the ancient Romans, who, beſides this, backed them with good armies to keep the conquered nations in obedience. Another way of eſtabliſhing themſelves in a conquered country, though a very barbarous one, was introduced by the Spaniards and Portugueſe in America, who, by deſtroying the ancient inhabitants, and planting colonies of their own, ſaved themſelves the charge of keeping many forts and garriſons for their defence. Neither of theſe was ſufficiently obſerved by the Dutch, after their conqueſt of the Dutch Brazil; for, according to their agreement made with the Portugueſe, the laſt were left in the entire and quiet poſſeſſion of all the ſugar-mills, plantations, and grounds thereunto belonging, whereby the Dutch ſubjects were, in a manner, excluded from getting any conſiderable footing in the open country, eſpecially, ſince ſuch of the ſugar-mills as happened to fall into the company's hands, by forfeiture or otherwiſe, were ſold promiſcuouſly to both nations, and commonly at ſuch exceſſive rates, that the

Dutch

Dutch durſt ſeldom venture upon them; the taxes laid upon every thing belonging to the ſugar-mills, and upon the ſugar itſelf, being ſo great, that little profit was to be reaped from thence, unleſs the ſugar ſold at a very dear rate; whereas, on the contrary, we ought, after the example of the Spaniards, to have endeavoured to draw our ſubjects into Brazil, by the granting of conſiderable immunities of honour and other advantages. The military force of the Dutch in Brazil, was likewiſe not duly regarded; for whereas according to a juſt eſtimate made in 1641, by Count Maurice, 7,076 men were abſolutely requiſite to maintain the Dutch garriſons there, the States of Holland, inſtead of following his directions, did, after the concluſion of the ten years' truce with Portugal, order the great council of the Dutch Brazil to reduce their forces there to eighteen companies of one hundred and fifty men each, and, though ſeveral remonſtrances were made upon that head to the contrary, the truth of which was verified by the event; yet the ſuccours ſent from Holland arrived ſo ſlowly, that after my departure things grew worſe and worſe every day, and the Dutch had loſt all their ſtrong holds 1654. For the Portugueſe began to blow up the Receif by ſea, with ſixteen ſhips, and to beſiege it by land 1653, in December, with ſuch ſucceſs, that our people being conſtrained by hunger, and the garriſon refuſing to fight, were forced to ſurrender the place with all its circumjacent forts to the enemy; ſince which time the Portugueſe have remained in the entire poſſeſſion of Brazil; the ſame being confirmed to them by the peace made the 6th of Auguſt 1660, betwixt Portugal and the States of the United Provinces, in which, among others, theſe following points were agreed upon:—

That the Crown of Portugal ſhall be obliged to pay to the States the ſum of eighty tuns of gold, either in ready money or ſugar, tobacco, or ſalt, or elſe aſſign the ſaid money upon the Portugueſe cuſtoms.

That the places taken on each ſide ſhould remain to thoſe who were then in poſſeſſion of them.

And that a free trade ſhould be allowed to the Dutch in Portugal, Africa, and Brazil, without paying any more cuſtoms than the native Portugueſe.

END OF VOL. XIV.

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The Skinning of the Aboma Snake.

Indian Female of the Arrowauka Nation.

Cascade of the River Vinagre

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